Russia and Sustainable Development

A Myth to Be Created or an Evolutionary Step?

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“Éist le fuaim na habhann

agus gheobhaidh tú breac”

Listen to the sound of the river

and you will get a trout.

Irish proverb

Abstract: This interdisciplinary study explores the idea of sustainable development in the context of one country: Russia. The aim of the study is to examine the notion of sustainable development through the case study of theory and practice in Russia. Research relating to official documents, discourses, cultural and scientific heritage, is carried out at the national level. To illustrate my points at the local level, I focus on the Krasnodar territory. Thesis findings are mostly based on the views and experiences of people in the field. Chronology is employed as part of the argument and as an approach. A distinction is drawn between the Soviet era, the early transformation period in the early 1990s, and recent developments at the turn of the twenty-first century. This work presents 'the career' of the idea of sustainable development at the federal level, including its practical implementations and impediments, as well as the illusions and disillusions at the local level. The dichotomy seen already in the thesis' title acquires multiple articulations in this research of political and cultural handling of ideas of the cause of civilization, human and nature dignity in Russia. This study is particularly concerned with the gap between ideas and action. This gap takes, as a rule, the form of hypocrisy or inconsistency between decision and action. This research examines the discrepancies between international activities, national influences and circumstances and local cultures. Accordingly, I intend with this study to broaden initial 'global' elements of the idea of sustainable development with more local political, historical, cultural and emotional content. The study also discusses the ways in which culture and cultural crisis can influence our prospects for a sustainable future.

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A good deed is never lost!

Let peace and sustainable development come sooner...

Elena Lukyanova

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Introduction

Sustainability has become a significant developmental paradigm since the publication of the Brundtland Report. As a multilateral initiative, sustainable development is commonly perceived as a global principle but tends to lose its credibility on the local stage. Moreover, it can be argued that the mainstream idea of sustainable development is "...a humane version of cultural imperialism" (Witoszek:280)[1]. In this sense, it is particularly interesting to trace, within such cultural hegemony from the global perspective, how the concept of sustainable development interacts with the cultural[2] legacy of a particular country. This study endeavours to outline these interactions in Russia.

The concept of sustainability has been criticised (Escobar 1995, Witoszek 1995), on the grounds that "...the notion is normally deployed with no references to its intellectual and historical roots" (Lee:32).[3] The cultural dimension of the concept of sustainable development requires further investigation.

A considerable volume of literature has been written on the questions of the meaning and implementation of sustainable development. I want to take an alternative path in my work or, at least, to get a new angle on the idea of sustainable development. My intention is to follow the stages of the introduction of a global idea onto a national scene and to show how the mainstream discourse on sustainable development has been enriched by the Russian view. This study analyses different aspects of the concept of sustainable development, specifically, theory, policy and practice. Theoretical aspects, combining historical insights and analysis of literature, will, as far as possible in a masters thesis, explore the

[1] The English version was provided by the author.

[2] Notion of culture in the thesis refers to one from the point of view of semiotics.

[3] Witoszek in her analysis of the Brundtland Report also shares belief that "the Report ignores a significant connection between historical memory and the process of making sense of everyday life" and provides an idea of an "an a-historically construed sustainable development" (Witoszek:282).

national level. My analysis of policy and practices analyses will concentrate on the local level.

“Human history is in essence a history of ideas” (H.G. Wells 1920). Those ideas or concepts, in turn, have their own histories. The broad history of the concept of sustainable development itself is presented elsewhere (e.g., Hardoy 2001). My intention in this study is to add to this history by focusing on Russian ideas and strategies which have been neglected in the global sustainability discourse. The study will focus, in particular, on how the concept of sustainable development is interpreted in the Russian social and cultural context since the Rio Declaration.

A critical analysis of Russian theory and practice on the issues of sustainable development is the main aim of the thesis. As Jonathan D. Oldfield argues, Russia’s size and consequent importance for the long-term integrity of global biophysical systems or, in other words, its potential to influence the state of the global environment, provides a compelling reason for this case study (cf. Oldfield 2001:94).

One key feature of sustainable development is its emphasis on not only ecological but also political and cultural aspects of the world. The idea of sustainable development stresses the awareness that it’s not just natural environment and climate are important for future development but climate of political decisions and environment of justice and civil society. Following the diachronic approach in this study, I intend to touch upon pre-revolutionary Russian and Soviet Russian environmentalism. How we approach the historical context is an essential point and in this sense it is crucial not to overlook “the political climate” in which environmentalism in Russia “...lived and died” (Guha:130). Because environmentalism or defending nature’s dignity in the climate of political oppression goes hand in hand with “...a wider struggle for democracy” (Guha:134). Still contemporary environmental organizations resist the colossal machine of bureaucracy and corruption in Russia. Environmental activities that conflict with the interests of political and administrative establishment in Russia

might, as in earlier times, become a threat to the personal safety and dignity of activists. Speaking out against environmental abuse, in some cases investigative journalists, environmental organisations and public activists are still the only ones who dare and care to dissent. They oppose destructive development projects, using these issues to express their political position and reflect on other social and political problems.

Positioning of my topic within the literature on sustainable development implies placing the Russian experience[4] within the context of Western environmental practice. On the other hand, my analysis will expose the local practices that are going on under the cover of the official rhetoric and the official commitment to sustainable development.

The dichotomy in the title of my thesis title gains multiple articulations in this research of political and cultural handling of ideas of the cause of civilization, human and nature dignity in Russia. Contradictions between words and deeds take the form of duplicity of authorities, moral dilemmas, divergence of interests and priorities both in political rhetoric and public action. This study is particularly concerned with the gap between ideas and action. This gap between words and deeds effects as a rule in hypocrisy or inconsistency between decision and action, between official commitment and actual state of things or according to Brunsson's study of hypocrisy (Brunsson 2002) two systems: 'the ideas system' which defines "...what is handled in mental and communicative processes" and 'the action system' identifying "...what is handled in material processes" (Brunsson:168).

In their research Oldfield and Shaw pointed to the possibility that an official commitment to sustainable development in Russia at the rhetorical level might be understood internationally as a commitment to an interpretation of sustainable

[4] Especially those aspects of the Russian experience, which Oldfield refers to as "...the oft-ignored underlying environmental sensibilities" that existed behind the socialist facade (Oldfield 2005:22).

development similar to the one approved by Western governments (Oldfield and Shaw:392). Moreover, Western environmental thinking has, with certain exceptions, largely neglected the possible influence of "...cultural factors on the nature of Russia's commitment to sustainable development" (Oldfield and Shaw:392).

In their study of the Russian cultural and scientific traditions and the concept of sustainable development, Oldfield and Shaw outlined several possible reasons for this neglect. The first and most obvious reason is communicative. Second, the relative isolation of the region, due to the Cold War, obstructed engagement with Russian environmental thought. Thirdly, there is an influential assumption that a country that made such well-publicised environmental mistakes during the Soviet period is hardly qualified to teach the global community new things about conservation and more general environmental issues (Oldfield and Shaw:395, cf. Pryde 1991). This criticism should not stop research on the unique Russian tradition of environmental thought and its possible contribution to the international debate.

Background for the Study.

"Development was and continues to be – although less convincingly so as the years go by and its promises go unfulfilled – the magic formula" (Escobar:vii). The concept of sustainable development was meant to become a realistic proposal to solve environmental problems in a broad sense, providing "...a framework for the integration of environmental policies and development strategies" (WCED:40). Two decades after this appeal in 'Our Common Future' of the World Commission on Environment and Development (1987), due to the concept's 'context-specificity' (Sneddon 2000 as cited in Oldfield and Shaw, p.398), researchers acknowledge its relevance for national and international policy and its effectiveness as an analytical tool.

But while the overall requirement of transition to sustainable development is “a new orientation in international relations” (WCED:40), sustainability has not yet been implemented at the global level. It could be argued that the Brundtland report is merely “...a tale that a disenchanted (modern) world tells itself about its sad condition” (Escobar:198) or a global myth. Whether sustainable development tends to become at least a national myth in Russia will be discussed in this work.

In Russian history one can observe how ideas became political myths and ideological legitimising devices. Soviet leaders had fantastic visions and proclaimed their concern for public health and the protection of natural resources, yet violated principles of justice and the dignity of humanity and nature. Feshbach and Friendly’s ‘cautionary tale’ of a high cost of neglecting the environment in the Soviet Russia reminds a reader “...of the terrible price in human health and natural wealth exacted from the Soviet people by leaders and a system that put first things last” (Feshbach and Friendly:xvii). Ecological destruction was extensive, but the Soviet system also caused massive suffering and countless civilian deaths – dramatically reducing people’s political rights and civil potential. The scope of the environmental crisis “...not only deflated pretensions about the social merits of the Soviet system” but also reflected “...an accumulating social breakdown” (Feshbach and Friendly:2). The mighty Soviet industrial civilization virtually annihilated itself by poisoning its land, endangering the health of its people and undermining their psychological well-being (Feshbach and Friendly:1,2). The case region – ‘the fertile Kuban’, Russia’s breadbasket - witnessed both massive use of toxic agricultural chemicals, poisoning its water arteries and overall the Sea of Azov and the Black Sea, disruption of land and groundwater contamination, inundations, loss in fishery income caused by pesticides and industrial wastes and emergence of a whole artificial sea to support irrigation of an ambitious project on cultivation of lowland rice.

Priority for gross output in industry and agriculture, huge investments in the wrong technologies (cf. Feshbach and Friendly:60), 'decades of error and indifference' (Feshbach and Friendly:51), misrule, liquidation by expropriation, deportation, the man-made famine and "...managerial incoherence and contemptuous neglect have all left a pitiful legacy of wasted and abused resources, both physical and human" (Feshbach and Friendly:57). Essential human rights, nature and human health were taken as a 'pledge' of the imperial prosperity.

It is ironic that at the time of these atrocities and ecocidal practices almost every settlement on the vast territory of the Soviet Union met you with the giant letters: "Everything – to the human benefit, everything for the human good!" Neither human- nor eco-centred industrial economy of the Soviet state used such slogans to disguise disregard for, humiliation and disempowerment of its citizens and "...the long-term and continuing abuse of two essential resources, nature and human health" (Feshbach and Friendly:2). A rich pre-revolutionary tradition of natural history and nature protection societies (Guha:126, cf. Weiner 1999, Oldfield 2005) and the extraordinary potential of the Soviet Russian science were hindered by oppressive regimes. Historically, "...the research agenda promoted by Soviet ecologists was not readily comprehensible to ordinary folk or to Soviet bureaucrats" (Weiner:117) who lived behind the ideological looking-glass of a materialistic vision. And revealing another discrepancy: "...we may speak of the biologists-activists and the bureaucrats as belonging to two separate cultures, trying to communicate across a wide gulf of language and values" (Ibid.:117). In reality the Soviet state held back environmentalism and the new Russian state has continued this practice up until now. And its façade is still painted with democratic slogans.

Values guide us in choices of activities and goals. The development problem commonly relates to the problem of values and attitudes. That is why research on sustainable development should involve close examination of local attitudes and

particularities. Concerning sustainable development, there is a huge gap in Russian society between desired system of values and existing patterns and attitudes. Modern societal practices in Russia display an irreconcilable pull away from the basic principles of the Brundtland Report. Generally, my intention is not to argue that sustainable development is "...a Western method of dominating, restructuring, and having authority"[5] over development's agenda world-wide. I am convinced that sustainability is not just a discourse but a genuine need.

The Russian view on sustainable development commonly (in official documents, discourses and popular views) builds on a philosophical and cultural heritage.[6] Much of this theoretical foundation is provided by Vladimir Vernadsky's *noosphere* theory. In Vernadsky's original theory, the noosphere is the third phase of evolution, after the *geosphere* (inanimate matter) and the *biosphere* (biological life). The crucial point is that humans have become a new and powerful geological force able to transform the planet. The emergence of the noosphere should become "...a critical evolutionary step needed for preserving and reconstructing the biosphere in the interest of humanity as a single entity" (Smil:266). Russian approaches to the concept of sustainable development presuppose these ideas of Vernadsky. In official debates, the concept of noosphere is interlinked with the idea of sustainable development.

Some Western researchers have admitted the gap:

> Our ignorance of Vernadsky reminds us of our lack of knowledge of the history of ecology in Russia and the part played by Vernadsky's biosphere concept in the rise of the Soviet tradition of environmental studies and global ecology (Grinevald:42).

[5] Initially these words are about Orientalism domination from Edward Said's "Orientalism", cited in Escobar, p. 6.

[6] While "in the West, these stories of the rational Soviet stewardship of nature and the economy were never much accepted" (Cholakov:159), due to the 'ecocider image' of the Soviet power.

At the same time, Russian scholars point out that the Brundtland Report contains no reference to any theoretical background for the concept of sustainable development (Kasimov et al.:30). While, the problem of originality and continuity of ideas is an inviting research topic, national or local traditional ways of interpreting development vis-à-vis the environment need to be carefully examined (Ibid.:30).

The official project of the National Strategy of Sustainable Development of the Russian Federation argues that "...due to intellectual and spiritual potential, Russia can contribute to the global process of ethical transformations" [7] (The Strategy:6). The Strategy also states that ideas similar to sustainable development have been expressed by several Russian scientists. Discussing the stages of transition to sustainable development and the role of science, the Strategy refers to Vernadsky and his idea of noosphere as "...a new form of civilisation existence" (Ibid.:6). It states that "achieving this stage of transition to sustainable development will be the first stage of noosphere development" (Ibid.:6).

Studying the influence of the Russian cultural tradition on the perception of the idea of sustainable development in Russia, Oldfield recognised that "...it is clear that Russia's interpretation of the sustainability concept is influenced by its own cultural heritage", and noted that even official documents declare that Russia is predisposed towards the notion of sustainability (Oldfield 2001:94, 105). As a matter of fact, as I shall show, the sustainability discourse in Russia is deeply entwined with discourses concerning national ideals and the role of Russia in the world (e.g. Moiseev S. 2004, Yakhnin 2006).

[7] Unless stated otherwise, all the translations from the sources in Russian in the thesis are mine.

Formulation of Central Questions and Aim of the Research.

This interdisciplinary study explores the idea of sustainable development as it has developed in Russia. Its aim is to examine the idea of sustainable development in the context of one country, both historically, comparing it to the similar ideas in Russian thought, and currently, covering practices and attitudes relating to sustainable development in a case region – the Krasnodar Territory. At a deeper level, my research task will be to discuss an astonishing paradox: Russia as a country which has a bad track record in violating the dignity of humans and nature and yet is also a precursor of fantastic moral visions of sustainability.

This thesis addresses the two main questions: What are the intellectual resources for sustainability in the Russian thought? What is sustainable development in Russia: a politisised myth, a ligitimising device for the state, or an evolutionary step in tune with the Russian scientific heritage?

The secondary questions addressed in this research are as follows:

- Can 'historically constructed sustainable development' provide ways of achieving sustainability in Russia?
- How does the concept of sustainable development interact with the Russian cultural legacy?
- What theories are associated with sustainable development in Russia?
- If ideas and theories similar to the concept of sustainable development already exist in Russia, does this affect Russian attitudes to sustainability as a Western paradigm of civilisation development?

Theoretical Approach and Key Concepts of this Study.

The approach is interdisciplinary, based on the 'development studies' methodology. Conceptual framework and textual analysis are influenced by the

methods of cultural and literary semiotics. This study is devoted to the ideas of sustainable development and noosphere or 'sphere of reason'; and focused around the concepts of myth, ideology, continuity of ideas and evolution.

I use the notion of 'idea' in this study in the same way as it is used in the study of Morten Bøås and Desmond McNeill – specifically as "...a concept which powerfully influences development policy" (Bøås and McNeill, 2004:1). Such concepts have some reputable intellectual basis, but may nevertheless be found vulnerable on analytical and empirical grounds (Ibid.:1). At the same time, such an idea is able "...to operate in both academia and policy domains" (Ibid.:1), a desirable feature with respect to the present study.

Discussing continuity of ideas I shall borrow the approach of Ramachandra Guha, "...the flow of ideas across cultures"[8] or "...locating the present in the past, showing the influence on contemporary movements of patterns and processes that have persisted over the years, or gone underground only to resurface once more" (Guha:8). My approach here is informed by the methods of conceptual history (Koselleck), which trace structures of repetition and linguistic evidence, and the idea of intertextuality (Barthes) and its interpretation in Macy and Bonnemaison (2003). This implies the view of an idea or a concept as a dynamic process and as the product of many people's contributions.

Addressing the concept of sustainable development[9] I shall use the definition from the Brundtland[10] Commission Report. Bearing in mind criticism of some commonly used definitions (McNeill 2000:14, 25), I have chosen to refer to

[8] As he specifies in his survey of environmental thinking, it was set out to "locate the present in the past", and to describe "the ways in which the environmental movement in one country has been transformed, invigorated and occasionally distorted by infusions from outside" (Guha:8).

[9] The notion of sustainable development was used in conferences in Africa in the 1960s and in the Stockholm conference on the Human Environment in 1972. In the 1970s it was adopted by environmental organisations. However, it was not until the publication of *Our Common Future*, the report of the World Commission on Environment and Development (WCED), that it became popularised (Knutsen:4).

[10] The Report took its name from the then Norwegian prime minister, Gro Harlem Brundtland, who chaired the World Commission on Environment and Development which was responsible for producing the report.

sustainable development as a "...process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are made consistent with future as well as present needs"(WCED:9). I find this definition more rigorous than others in that it shows integrated nature of challenges for governments, multilateral organisations, national institutions, business and everyone who stands for change. At the same time, the Brundtland Report definition singles out those dimensions that I intend to analyse in this case study. Moreover, it confirms the need for change and for responsibility in guiding future development and consumption.

My study also draws on two papers by Jonathan Oldfield (Oldfield 2001, Oldfield and Shaw 2002) and on a monograph by Mark Whitehead (Whitehead 2007). Mark Whitehead analyses the key philosophical ideas which lie behind the principles of sustainable development and discusses, as a sub-topic, relevant political reforms and initiatives in Russia. Oldfield is one of very few who admit the importance of the cultural dimension of sustainable development and who discuss the interrelations between the idea of sustainable development and Russian cultural heritage.

In analysing Russian environmental concerns, I will use a semiotic approach to culture[11]. Semiotics assumes that culture operates as a filtering mechanism for processing information from the outside world. The semiotics of culture emphasises the crucial fact that "...information may be considered important and significant, or may be ignored, within a given culture... In this way one and the same text may be differently read in the languages of different cultures" (Lotman, Uspenskij:xii). Attaching different meanings to the same words in the contexts of different cultures might help to explain discrepancies in perceptions of sustainable development.[12]

[11] Tartu Semiotic School, to be more precise.

[12] Regarding interdisciplinary and international character of this study, it is important to mention a concept of semiosphere coined in Tartu Semiotic School by Yuri Lotman. Juri Lotman was inspired by Vernadsky's ideas of biosphere and noosphere to propose that a semiosphere, a semiotic space,

In line with Valery Cholakov's article "Toward Eco-Revival", where he examines "proto-ecological statements and ideas" and studies the roots of environmentalism in Russia, I will trace proto-sustainability ideas and statements in this study. Cholakov argues that "...one can read the old authors in a more ecological way and find that their views were a complex mixture of different concepts" (Cholakov:155). A similar methodological approach is used in Keekok Lee's analysis of Gifford Pinchot's[13] environmental thinking (Lee 2000). Lee traces similarities and reveals differences between the idea of sustainable development in the Brundtland Report and ideas of conservation in the works of Pinchot[14]. Such a critical analysis constitutes a "...corrective to the sometimes shallow and ahistorical understanding that is shown of the key ideas that inform the Brundtland Report" (Holland:30).

This study draws an analogy between the idea of sustainable development and the concept of noospere as elaborated by the Russian scientist Vladimir Vernadsky. The noosphere ("*noosfera*") or 'sphere of reason' is the positive phase for globalised human action and knowledge, offering great potential for the development of society (Samson and Pitt:188). The term was coined in Paris in the 1920s by the French scientist and Jesuit priest, Pierre Teilhard de Chardin, philosopher Edouard Le Roy and the Russian scientist and natural philosopher, Vladimir Vernadsky. Vernadsky pioneered work on the concept and functioning of the biosphere and "...portrayed life as a global phenomenon" (Margulis and Sagan 1995 cited in Samson and Pitt 1999, p.19). More recently, his work has been recognised as an important precursor of such contemporary issues as global change and Gaia (*Gaia in Action* 1996, Samson and Pitt 1999). Samson and Pitt

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constructed of individual texts and isolated languages comes into being when any two environments are communicating.

[13] Gifford Pinchot (1865-1946) – the most influential original exponent of conservationism in environmental thought, scientific forester and politician.

[14] It is remarkable that H.G. Wells referred to Pinchot in his article for Soviet News: "I don't know how many Russians have heard of that distinguished American statesman, Mr. Gifford Pinchot, and his scheme for the Federal Conservation of World Resources. It is a scheme of world socialism…[]..the estimation and control of the world production and distribution of staple goods and the rescue of the common heritage of mankind from the wasteful exploitation of profiteering enterprises is not only practicable but urgently necessary" (Wells 1942:272).

point out that Vernadsky developed a view of life on Earth that "...ultimately led him to consider the increasingly important role of the intellectual realm – or noosphere" (Samson and Pitt:26). Teilhard de Chardin, Le Roy and Vernadsky used a similar concept of the noosphere, even though they developed it in different ways. Whereas Teilhard de Chardin saw it as a "thinking" layer above the biosphere, Vernadsky described it in essentially scientific terms as a transformed state of the biosphere (Samson and Pitt:5). For Vernadsky, the concept of the noosphere always remained inseparably tied to the biosphere – "...there arises the problem of the reconstruction of the biosphere in the interests of freely thinking humanity as a single totality" (Vernadsky's 1945 "Scientific Thought as a Planetary Phenomenon" as cited in Samson and Pitt 1999, p.6).

Comparing Vladimir Vernadsky's noosphere hypothesis to the idea of sustainable development, and in line with his theory, I use the notion of evolution. Specifically, the achieving of sustainability corresponds with "...the emergence of the noosphere as a critical evolutionary step" (Smil:266) in sympathy with progressive development of humanity within the carrying capacity of the planet. Progress, according to Vernadsky, corresponds to democratic values and strong civil society, and its crucial sources are scientific thought and labour. Moreover, progress is entwined with the transformation of human identity. As Vernadsky's successor Nikita Moiseev put it, progress involved an "…inevitable transformation of civilization, transformation of its principles" (Moiseev 1995 as cited in Rozenberg et al. 1996, p. 436).

This research articulates the significance of myth and hypocrisy for critical analysis of developmental ideas as used for political purposes and their implementation on the ground. The phenomenon of modern myths was defined by Barthes as a type of speech (Barthes:110). Its form is motivated and its meaning implies global signification (Ibid.:116-126). Barthes' ideas of myth are essential for the approach in this work, as in his view myth functions as a

synonym of ideology[15] and a theoretical construct that reinforces ideology. Ideology implies promoting beliefs and values that sustain and legitimate a dominant power (Brown 1992). The Russian state has witnessed multiple attempts to indoctrinate ideas, values and beliefs maintaining and carrying on power of their promoters. This is a crucial aspect and this research raises awareness around myth (as defined by Barthes (2000) and hypocrisy (as a part of Brunsson's theory (2002) as power legitimising instruments.

The analysis of local practices of development will refer to Nils Brunsson's theory on the organisation of hypocrisy. Nils Brunsson's concept "organisation of hypocrisy" – signifies "...a difference between words and deeds, the eventuality that organisations may talk in one way, decide in another and act in a third" (Brunsson:xiii).

In addition, Samuel Huntington's notion of the torn countries will be utilised in the study, to bring more clarity to the discrepancy between the Western policy trends and Russian state ideology projects in the period of transition. The distinctiveness of the Russian case is also in the fact that being a new political objective in the Western states, sustainable development has gained many more connotations in Russia – from a foundation of a new state ideology to the philosophy of a novel mental revival. In search of a new ideology during the 1990s Russian politicians and scholars tried "classic liberalism", "democratic patriotism", "great power statehood" as starting points. After the Rio Earth Summit they attempted to use the idea of sustainable development to form the basis of a new ideology system. The Russian sustainable development discourse reviewed in the next chapter articulates some of the tensions connected with this project.

[15] Cf. "For Barthes, 'myth' has the more political charge associated in other kinds of critique with the word 'ideology'" (Brown:23).

The Nature of this Study.

This research explores the phenomenon of sustainable development by setting Russia in a worldwide context. An endeavour to place the object of the study, namely the idea of sustainable development, into a larger historical and cultural framework might also result in a re-interpretation or re-evaluation of existing concepts of knowledge.

I will try to be critical in my research and present multiple views of my subject. These views are often controversial, presenting opposition and variety of actors vis-à-vis discourse and practice. And this is one way to assure consequential validity of my findings.

This study is embedded in a constructivist paradigm. The heuristic and epistemological perspective of constructivism predicts that "...phenomena are intricately related through many coincidental actions" (Stake:41). At the same time, understanding them "...requires looking at a wide sweep of contexts: temporal and spatial, historical, political, economic, cultural, social, and personal" (Ibid.:41). Constructing knowledge via this kind of research requires the kind of interdisciplinary approach the present study adopts. To succeed in the inquiry, in cases where historical context includes political decisions and cultural aspects, a researcher needs to employ the methods of several disciplines. As a result, the methods of anthropology, political ecology and cultural semiotics are combined in this inquiry.

The fact that constructivism has opened "...the door to a better understanding of ideational influences in international politics" (Hentz:195) is a decisive factor in the study of development and the environment and explains why it is an appropriate methodological approach. Moreover, in spite of recent criticism, constructivism is still appealing to researchers who inquire into local and specific realities to discover how meanings are created and interpreted.

Methodology.

The project is a combination of historical research and a case study. The theoretical approach is interdisciplinary, based on development studies and conceptual history. The conceptual framework and textual analysis are influenced by the methods of cultural and literary semiotics. My employment of the methods of comparative history is based on Hunold and Dryzek's definition: "Comparative history for its part is much more than a reality check on idealistic proposals: it is also a source of ideas and insights about real possibilities for green change" (Hunold and Dryzek:94). My use of "synchronic" and diachronic" historical research draws on the Swiss scholar Ferdinand de Saussure (1857-1913), one of the founders of modern semiotics. Saussure used the concepts 'diachronic' and 'synchronic' to emphasise that language changes across time and yet has a definite structure at any one point in time. Conceptual history focuses upon both aspects. It compares analysis of a concept within a given semantic field at any one point in history with a diachronic perspective which draws out shifts or changes in the meaning of concepts. I use this conceptual-historical analytical approach to draw attention to the developing of the concept of sustainable development as well as the progressive dissemination of it. Moreover, the study's inclusion of diachronic aspects of the topic allows it to cover the gaps in previous work.

It is important "...to see development as a historically produced discourse" (Escobar:6). Chronological structure applied to the concept of sustainable development works as a part of the argument in the thesis. The significance of such approach is also stressed by Mary Douglas: **"**We should be concerned to know how beliefs arise and how they gain support**"** (Douglas:230).

My underlying intention can be formulated as: "...to shed light on past practices and beliefs, and in so doing to stretch the linguistic limits of present-day political discourse" (Ball:75). I will analyse political debates and arguments in which the concept of sustainable development seems to have served a political purpose. The

chronological sequence elucidated in the study helps to reveal neglected connections: “Attention to context means attention to history” (Hunold, Dryzek :75).

The aim of identifying gaps in, and contributing to, previous research on sustainable development thus legitimises the approach this study adopts. The interdisciplinary nature of this study requires a combination of methods. Such study design allows for the addressing of different sub-topics simultaneously from different angles. Different approaches suited to different goals will shape each chapter’s methodology. Hence, “...with multiple approaches within a single study, we are likely to illuminate or nullify some extraneous influences.” (Stake:114)

Edel's methodology for analysis of concepts and ideas is also relevant to this study. Aware that “the ideas we investigate for content are qualities of natural events over periods of time”(Ibid.:214), Edel argues for identifying the “sociohistorical content” of ideas to make them complete (Edel:216, 217). Edel emphasised that when gaps and discrepancies lead on the researcher in the analysis, the content of idea becomes broadened beyond the initial elements identified (Edel:214). This research attends to the discrepancies between international activities, national influences and circumstances and local cultures. Accordingly, I intend with this study to broaden initial ‘global’ elements of the idea of sustainable development with more local political, historical, cultural and emotional content. Thus the idea of sustainable development in this research appears as a synthesis of its global component and intrinsic Russian sociohistorical content. Analysing ‘the career of an idea’, as defined by Edel, or the existential conditions underlying its development, presupposes a methodology similar to that of McNeill 2004’s 'biography of an idea', which also constitutes an appropriate method for this study.

The data collection approach is for the most part based on the method of literature review. The approach in the thesis can be mostly described as “...the

review for examining the history of ideas" (Hart 2005:139). That is, using the literature, to revisit authors or groups who have been dismissed or forgotten and "...to plot historically the origins of an idea, theory development or argument" (Hart 2005:151). In my case I shall try to study the history of the precursors of "sustainable development" in Russia and show their evolution over time.

The analysis in this work is primarily based on the review of a body of literature, showing how the key term 'sustainable development', has been re-defined, discussed and used. The literature used in the analysis includes journals, conference papers, newspapers, governmental publications, anthologies and reports, published both in Russia and worldwide.

Focusing on the dynamic aspect of the environmental issues, my inquiry will be supported by discourse analysis. Discourse analysis is a useful methodological approach in the studies of development and environment. It provides a deep insight and understanding of the problem: "...discourses reflect the operation of influence as well as generating it" (Myerson and Rydin:22). The purpose of this approach is to reveal similarities and differences between national (Russian) and global (mostly Western) perceptions of sustainable development as an idea and call for action.

Because the concept of sustainable development is such a powerful one, affecting multiple actors, it is necessary to categorise the main agents and their motives and values. Besides, the analysis in this study will inquire whether and to what extent the environmental discourse is embedded in other discourses in society (cf. Hønneland:1). Tracing the arguments, as well as metaphors and other rhetorical devices which discourse actors employ, and exposing assumptions about natural relationships (as recommended by Dryzek 1997) constitute the basic method of analysis. The discourse analysis will be illustrated with the tables of arguments and comparative approaches that analyse the moral and ethical standpoints and political and ideological perspectives.

For my exploration of the local initiatives and the situation concerning sustainable development in the case region, I use the objectives of sustainable development defined by Serageldin and Steer. These are: growth, equity and efficiency as economic objectives; empowerment, participation, social mobility, social cohesion and institutional development as social objectives; and ecosystem integrity, carrying capacity, biodiversity and global issues as ecological objectives (Serageldin and Steer 1994 as cited in McNeill 2000, p. 16).

My ambition is to explore the gap between theory and practice. The candidates for interviews include representatives of executive authorities and state environmental agencies, university professors, and representatives of social and environmental movements. This reflects my intention to show how various groups with diverse interests have interpreted the concept of sustainable development and translated it into practice. I want to ensure that conflicting voices and different meanings will be heard in my work.

Setting the Scene. Data Collection.

The case study area in my research is the Krasnodar Territory. There are several reasons for this choice. The Krasnodar Territory is a prosperous region, one of the most dynamic in the Russian Federation, attracting both national and international initiatives. Krasnodar, the capital, is the place where the territory authorities, research centres and universities are located. In addition, it is my native town – which has allowed me to make the necessary contacts and find my way around. Before starting the fieldwork, I made a preliminary enquiry, estimating how many informants I could find for qualitative interviews, which would then form the basis of analysis of the local practices of sustainable development. The purpose of interviews was to gain an overview of the regional social patterns and local complexities (cf. Oldfield 2005), as well as the economic development situation and civil society participation and involvement.

The fieldwork itself has turned out to be highly productive. The interview process developed rapidly in tune with the methods of the "snowball" technique (Piirainen:47), I found people to interview by word of mouth. In most cases, I had background information about potential interviewees, but got detailed comments and help in contacting them from their colleagues. Several times, I received information about potential new interviewees just through the people that had already participated in the interviews. The local stakeholders generously helped me to move further, recommending their colleagues and providing me with supporting information. Finally, I had eight in-depth conversations at my disposal for a further analysis. The interviews were recorded with a digital voice-recorder and were partly structured with the set of questions which I had prepared for each respondent prior to the interview, according to their particular work and involvement in the processes of regional development. I also feel that my cultural and local competence contributed to the quality of the interviews – as it has been noted that "...the building of a confidential interview situation may not always be the easiest of tasks for a fieldworker from a foreign country" (Piirainen:48).

Here is the list of my informants, including their affiliations and titles:

1. Antonidze Ekaterina – country team leader, Global Environment Facility (GEF) – the United Nations Development Programme (UNDP) Black Sea Ecosystem Recovery Project;

2. Cherpakov Vladimir – head of management faculty at the Academy of Marketing, Information and Technology, former executive in the State Caucasus Biosphere Reserve;

3. Kharitonov Igor – vice-rector, research professor at the Academy of Marketing, Information and Technology;

4. Litvinskaya Svetlana – the Kuban State University professor, Doctor of biology, course leader on sustainable development and geo-ecology;

5. Savva Mikhail – grant programs leader at the Regional Southern Resource Centre, the Kuban State University professor, Doctor of Political Science;

6. Serdyuk Vasiliy – head of the technical inspection in the Krasnodar territory's division of the Federal Environmental, Engineering and Nuclear Supervision Agency;

7. Sergeeva Marina – All-Russian Society of Nature Conservation, chairman of the Krasnodar Territory sector;

8. Shevchenko Dmitry – a young representative of Environmental Watch on the North Caucasus (EWNC), the leading environmental organization in the case study area;

9. Yarmak Leonid – head of the ecological inspection in the Krasnodar territory's division of the Federal Environmental, Engineering and Nuclear Supervision Agency.

I have tried to take care of the even distribution of voices both from the official and NGOs informants, and to get a balanced representation of gender and age of stakeholders. Stakeholders have diversified experience on the local and national stage. To mention a few fields: Antonidze, Yarmak, Litvinskaya and Kharitonov were also involved in several international projects on regional development. Serdyuk, Antonidze and Yarmak coordinated and supervised the work on the reports on the state of environment in the region. The South regional resource centre initiated conferences on evaluation of social projects and local NGOs and their role. EWNC has actively campaigned against a number of large scale Russian oil and gas projects since the 1990s. Cherpakov opposed destructive commercial projects on the territory of the State Caucasus Biosphere Reserve.

Thesis Outline.

The thesis structure follows the study's objectives, moving from a statement of theory and methodology, through analyses of the various theoretical perceptions, to consideration of the actual practices of sustainable development.

The thesis begins with the section, which introduces the subject and focuses on the significance of the study and its theoretical assumptions. Further it clarifies methods and research design as well as the theoretical framework of the study. I introduce and explain the research task and the procedures of data collection and analysis employed.

The first chapter will review how the concept of sustainable development has been interpreted and questioned in the Russian social and cultural context. Such an approach allows for the transition from the global to the national level in my discussion. This chapter focuses on the perception of the idea of sustainable development by the authorities and academy, the policy and research dimensions of the idea, and the National Strategy of sustainable development of the Russian Federation. And it will reveal peculiarities of Russia's interpretations of sustainable development by reviewing some common views on the concept.

The second chapter aims to place the sustainable development discourse in Russia in a larger historical framework, adding diachronic aspects. The chapter will provide an insight into Russian environmental thought and Russian environmental concerns. The ideas and theories born in Soviet and pre-revolutionary Russia will be reconsidered and compared to the modern Western concept of sustainable development.

In chapter 3 I shall review the legacy of the prominent Russian scientist, Vladimir Vernadsky. The analysis will be focused on comparing two holistic ideas, namely, noosphere and sustainability. The holistic views of Vladimir Vernadsky and his theories of the development of civilisation will be here enriched with the ideas of contemporary environmental scientists and other thinkers.

The last chapter explores current attitudes to the idea of sustainable development in the case region. The main focus of the analysis will be the local response to the local agenda – as evidenced by semi-structured interviews with the stakeholders[16], environmental reports, monographs and articles of the informants.

[16] The workshop report of the Commission on Sustainable Development defines the range of stakeholders as follows: **"**This includes: local government, trade unions, industry, NGOs, women's groups, youth, education groups, scientists and academics, media and regional governments." (Stakeholder Forum 2006)

Chapter 1.

Sustainable Development – the Perceptions of the Western Paradigm in Russia.

…and the problem of the ozone layer depletion is just one of the consequences of the loss of the moral layer.

M. Blumenkrantz

This chapter provides an insight on how the concept of sustainable development has been interpreted and questioned in the Russian social and cultural context. The perceptions of the idea of sustainable development by the authorities and academia, and the policy and research dimensions of the idea will be studied here. I will analyze the standpoints and perspectives of the main discourse agents, focusing on the meanings attached to the idea of sustainable development in Russia. This chapter will reveal peculiarities of Russia's interpretations of sustainable development and discuss a variety of views on the concept.

The transformation in the Russian Federation in the early 1990s, along with the 'wind of change', opened Russia up to external cultural influences. The concept of sustainable development was one of several "novel introductions of new discourses and practices from outside Russia" (Kotilainen et al.:72).

1.1. *The Reception of the Brundtland Report. The Official Reception of the WCED Goals.*

Russia was one of 179 countries at the Rio Earth Summit in 1992 to adopt the UN policy on the issue of sustainable development as the solution to global problems. The official history of sustainability as a normative goal for the federation development in Russia started at that time.[17] As an active participant

[17] If not several years earlier, when Vladimir Sokolov had become one of the commissioners in the WCED.

of the Rio Earth Summit, Russia signed the Conference's strategic policy documents – Agenda 21, the Rio Convention, Convention on Biodiversity and UN Framework Convention on Climate Change. According to the strategy worked out by the WCED, sustainable development is a global objective, but "each nation will have to work out its own concrete policy implication" (WCED:40). Conforming to this objective, the Russian government developed several legislative acts. Two Presidential decrees – "Concerning the Russian State Strategy for Environmental Protection and Ensuring of Sustainable Development" (1994) and "Concept of the Transition of the Russian Federation to Sustainable Development" (1996) – became, however, a direct response to the goals of the WCED. The latter act is essential; it constitutes a direct response to the objectives of Agenda 21. The 1996 Presidential decree sets the Rio policy documents' strategy as an official guideline for the necessary transition of the Russian Federation to sustainable development (Presidential decree 1996:5). It uses the same conceptual framework as the Brundtland Report and its legacy and builds the country's strategy "on the basis of recommendations and principles, stated in the documents of the UN Conference" (Ibid.:5).

The analysis of the policy dimension of sustainable development in Russia reveals first and foremost its main feature, namely, the official commitment to the Brundtland legacy. Oldfield and Shaw consider this fact to have been formed by the desire to "demonstrate compatibility with the international community in order to ensure that Russia does not become ostracized from developments at this level" (Oldfield and Shaw:395).

1.1.1. *The Role of the Concept of Sustainable Development in the Russian Legislation and the Local Governance.*

Since Rio, the concept of sustainable development has played a major role in the Russian legislation and policy. According to the Presidential decree from 1996,

the concept was to be incorporated into the decision-making and forecasting on both federal and local level of government (Presidential decree 1996:5). At the same time, several regions of Russia started the elaboration of regional programs of sustainable development as a result of the initiatives of local authorities and scientists.[18] Thus the transition to the local level was marked by incorporating the discourse of sustainable development into the local policy.

It is worth noting that soon after Vladimir Putin had become a President of the Russian Federation, the State Committee for Environmental Protection was abolished by Presidential decree (in 2000). Nevertheless, right before the summit in Johannesburg, President Putin initiated the development of a strategic policy document concerning paths for ensuring the sustainable development of the Russian Federation. A number of leading environmental organizations and scholars worked together to produce to-be-called "The Ecological Doctrine for the Russian Federation". The document is meant to set the objectives and paths for the long-time development of the country. The doctrine verifies the commitment to the Earth Summit and posits sustainable development as one of the main principles for the national ecological strategy (*Ekologicheskaya Doktrina*:12). It contains the detailed vision for the country's development within the conceptual framework of the Brundtland Report. Notwithstanding, the Ecological Doctrine states that one of the main obstacles for preventing environmental degradation is inefficient coordination on the global level, concerning environmental issues and the process of globalization (Ekologicheskaya Doktrina:12). On the other hand, it emphasizes that "Russia plays a key role in sustaining the global functions of the biosphere" and that "the scale of natural, intellectual and economic potential of the Russian Federation determines Russia's important part in solving global and local ecological problems" (Ibid.:12). In particular, the Doctrine stresses the importance of the

[18] The Republic of Buryatiya, the Republic of Bashkortostan, the Altai Territory, the Khabarovsk Territory, the Volgograd Region can be named as the examples.

environmental education and civil society developing as the requirements for the implementation of the state environmental policy (Ibid.:12).

1.1.2. *Public Response and Polemics.*

Since entering the Russian official debates, the concept of sustainable development has been addressed by a vast number of politicians, scholars, scientists and enthusiasts. The post-Rio period witnessed not just a positive official response, but a wealth of polemics and publications on sustainable development. As well as rigorous scientific papers, publications include many works addressing the concept in general and investing it with the Russian viewpoint.

Initially the concept got a hearty welcome in Russia. Academics enthused over it as a “new paradigm of being”, shifting grounds from ‘possessing’ to ‘existing’ (Yakhnin:165) and as "a new path to the future" (Koptyug 1995:14). However, embracing a novel Western concept in Russia was also acomponied by ideological anxiety. For instance, in their Recommendations for the Johannesburg Summit, the Russian NGOs worry about disseminating a “prejudice” that environment conservation is a privilege of wealthy countries and that sustainability is a bourgeois invention. They argue that the fundamental ideas for sustainable development originated and formed in the Russian scientific thought (The Russian NGOs:7).

The painful process of transition from the Soviet Union to Russia is also reflected in the sustainable development discourse. There appeared a number of academics, nostalgic about the Soviet era, who considered sustainable development as an opportunity to save the socialist idea, much in the same way as the communist ideology (cf. Oldfield 2001, Moiseev S. 2004). Sustainable development was given a very original interpretation in the Russian Communist Party. If in the West it has been perceived as embracing mainly ecological

concerns and technological solutions for ecological problems, the Russian left has used it "to attack 'anti-ecological' capitalism (and market reforms in Russia) and propagate an all-embracing societal transformation, with clearly socialist pathways" (Moiseev S.:173).

Debating the concept's meaning and relevance in the Russian context, Russian scholars mention sustainable development as perhaps the only exception from a relative 'ideational independence of Russian science' (Kasimov et al.:28). This aspect and the active multidisciplinary response to the idea allow discussion of the phenomenon of the concept of sustainable development in general (Ibid.:28).

1.1.3. *The Russian Translation of the Concept and Attempts to Clarify its Meaning.*

As everywhere else in the world, the notion of sustainable development has also involved a debate in Russia. The inadequacy of the Russian translation happened to become another intrinsic reason for mixed feelings and varying interpretations. The term '*ustoichivoe razvitie*', being used in Russia officially, literally means 'stable' or 'steady' development. While "sustainability" has been translated into Russian as "stability" ("*ustoichivost'*"). Scholars point out this discrepancy and argue that the meaning of the term 'sustainability' implies more than just stability and that sustainable development can hardly be identified with stable development only (cf. Voinov 1996, Moiseev 1999, Tarasova 2002). This infelicity of stylistic nuances results in vagueness, but not in ambivalence of the concept's meaning.

Thus, the Russian term tends to lose the ecological connotations of the word 'sustainable' and needs to be followed by further explanations and references to 'balanced solution' or 'intergenerational equity' (cf. Oldfield and Shaw 2002). Some researchers suggest that it would be more proper to translate the term 'sustainable development' into Russian as 'permissible development' ("*dopustimoe razvitie*"), 'non-consumptive' ('non-exhaustive')

("*neistoschayuschee razvitie*") or 'development, maintaining integrity' ("*razvitie, sokhranyayuschee tselostnost'*") (Rozenberg et al.:436).

The other alternative notions that are used to clarify the meaning of the concept are: 'not damaging environment' (Piskulova 2000), 'environmental demand' (literally 'ecological imperative'[19]) (Mirzoyan 1992, Moiseev N. 1999), 'guided development' (Golubev 1992)[20], 'rational and focused development' (Moiseev N. 1999), balanced development (Molokanov 2004). On the other hand, leading scientists have been sceptical of sustainability as a "scientific" idea, as the translation of the notion 'sustainable development' into Russian did not convey its meaning properly (Tarasova:21).

1.2. *The Distinctive Features of the Russian Sustainable Development Discourse.*

While the perception of sustainable development outlined in the official documents appears similar to that presented in the West, the discourse displays some distinctive elements. The analysis in this chapter focuses on these intrinsic features of the use of the concept of sustainable development in Russia.

It is important to note that the sustainability discourse in Russia is entwined with the other important national discourses: the discourses of the national idea, national security and Russia's position in the world. At the same time, the 'national idea' discourse corresponds to the issues of moral and intellectual values and cultural revival. The 'national security' discourse resembles with the problems of civilization development and resources wealth. In addition, the

[19] "Ecological imperative – a powerful demand to make economic, technical and social plans, based first of all on the laws of the living matter" (Mirzoyan:65).

[20] Golubev develops an idea of Vladimir Vernadsky on the epoch of guided development, "based on the objective laws of nature and society" (Golubev:30).

discourse of Russia's position in the world re-echoes the national idea and national security discourses and raises issues of scientific heritage, empire ambitions and cultural distinctiveness. Although sustainability is a 'global' discourse, in Russia it has in a way been 'nationalised' and used to enrich the important national conceptions.

The table below displays the discourses and their components.

Table 1. ***The national discourses and issues involved in the sustainability discourse in Russia.***

The national idea discourse	-Culture, cultural/ethical revival, intellectual values -Moral values/obligations, metaphysical and ethical issues, spiritual values -Fundamental change in our understanding of paths for development
The national security discourse	- Natural distinctiveness, resources wealth - Civilization development
Russia's position in the world discourse	-Distinctive mission, imperial ambition -Scientific heritage -Cultural distinctiveness

1.2.1. *The National Idea Discourse.*

The sustainability discourse in Russia is deeply entwined with the discourses of the national idea and the course of Russia in the world[21] (e.g. Yakhnin 2006, The Strategy 2002, Presidential decree 1996). In 1992 a multidisciplinary academic program was started, to build up a concept for development of the Russian state and society in the period of transition. The mid-1990s witnessed a range of anxious attempts to indoctrinate a new ideology. The new ideology was meant to re-unite citizens around common objectives, values and interests. In this context it is proper to refer to Samuel Huntington's concept of 'torn countries' or countries in transition (Huntington 1996). Russia, as a 'torn country', redefining its civil identity and searching for a national idea, accepts a concept of sustainable development. Russian intellectuals grasped any chance of a theoretical support suitable as a foundation for the national idea. And the idea of sustainable development is no exception. Its framework is used to encapsulate the national strategies and to re-design national traditions. In this sense, the idea of sustainable development as used in official rhetoric brings together the Western policy trends and Russian traditional worldviews: the imperial conception, messianism, and national distinctiveness. Remarkably, President Yeltsin officially initiated a development of a new all-Russian ideology (national doctrine) in 1996, the same year as the "Concept of the Transition of the Russian Federation to Sustainable Development" was elaborated. These matters will be further clarified in the followed sections.

1.2.2. *Cultural Distinctiveness as a Positive Factor for Sustainability.*

In the enthusiasm for sustainable development, one of the supportive arguments in the Russian sustainability discourse was the posited closeness between Russian

[21] Or Russia's place in the global historical process, or among civilizations of the world, the distinctive features of its civilization.

culture and sustainability (cf. Oldfield 2001, Oldfield 2005). The official documents also claim a close affinity between Russia's 'customs, spirit and mentality' and the core concerns of sustainable development (Presidential decree 1996:5), thus "mirroring similar statements in the Russian social science literature" (Oldfield 2005:74).

Cholakov argues that environmental tradition contributes to and eases the transition to sustainable development (Cholakov 2000) on the grounds that "the roots of environmental concerns in this part of the world are much deeper" (Cholakov:151). The arguments of the author demonstrate that the Russian environmental movement, and the concerns that characterize it, did not arise during the upheavals of the 1980s and 1990s as a result of a new openness to Western influences. They emerged from a long tradition of Russian thought about nature and attempts at conservation[22] going back as least to the seventeenth century[23].

Similar lines of reasoning lead to "nationalist sentiments" and claims that "Russian culture is more amenable to the application of the concept than is Western culture" (Oldfield and Shaw 2002:396). This fact can be illustrated with an example from the communist-nationalist-oriented Siberian philosopher, Vladimir Turchenko's writings on the pivotal role of Siberia in sustainable development: "Siberia is truly acquiring key economic and geopolitical importance in the world and the capacity to become the turning point of mankind's turn to the way of sustainable development" (Moiseev S.:173).

It is just as well to add that the Russian Parliament Commission on Sustainable Development shares the opinion that Russia holds the lead among other countries

[22] Oldfield and Shaw (2002) also draw parallels between the modern visions of sustainability and the ideas of local environmental process in old Russia, the establishment of close ties to the land and an intimate knowledge of how ecological systems operate and survive.

[23] Cholakov refers to legislative acts of that time, which worked out environmental measures for military protection.

in the world in prioritizing spiritual development over development of consumtion (Barlybayev:9).

The report of the Russian Regional Environmental Centre provides an analysis of the stand of the Commission of the former Soviet states regarding the implementation of sustainable development. The study names Russia, Ukraine and Belarus as the most prepared among the former Soviet states to implement sustainable development (Kozel'tsev:15).

1.2.3. *Sustainable Development and the Issues of the National Security.*

The notion of sustainable development has also been integrated into legislation of the national security of the Russian Federation. The main legislative act is the 1997 Presidential decree 'Concerning the Affirmation of the Concept of the National Security of the Russian Federation'. The decree clearly states that the environmental interests are an important part of the national concerns guiding the strategy of state development. The decree states that the attainment of sustainable development is the only basis for meeting national interests (Presidential decree 1997:3).

The concept of national security outlined in the decree resonates widely with the concept of sustainable development suggested in the Brundtland Report. At the same time, however, it is deeply entwined with the challenges and questions of the Russia's position in the world, its cultural distinctiveness and its spiritual values. In this way, this legislative act can also present a meeting point for the Western (or global) concerns expressed in the Brundtland Report and Russian views. The interdependence of the national security and environmental concerns is also expressed by Russian scholars. In her article on international competitiveness of the state, Piskulova writes: "environmental concern should become an important aspect of strategy for raising the competitive capacity of Russia" (Piskulova:48). The importance of environmental awareness as an aspect

of personal and state security is also a point of concern in the discourse on sustainable development (e.g. Baranovsky 2002, The Strategy 2002).

1.2.4. *The Country's Natural Distinctiveness*.

The polemic on sustainable development in Russia inevitably addresses the issues of the natural distinctiveness of Russia and its resource wealth. The main claim is that the path of sustainable development is of great importance to Russia, since its natural resources are unique. The argument that the country's ecological potential could maintain the biosphere sustainability for the whole planet has been developed by Victor Danilov-Danilyan, the former Chairman of the State Committee for Environmental Protection. He emphasizes that Russia should prioritize the conservation of ecosystems and the ecologisation of the production process to the regulation of consumption rates and population growth rates (Oldfield 2001:103).

Other authors confirm Russia's global role as the most important biosphere region (e.g. Pegov 2004, Koptyug 1996) and argue that Russian ecosystems are making a valuable contribution to the stability of the planet (Pegov:1088)[24]. The State Strategy for Sustainable Development underlines that the country contains a unique ecosystem bank that reveals an enormous potential for restoration of the Earth's biosphere (The Strategy:7). In this regard, Russia should actively promote the development of international economic mechanisms for biosphere conservation, in order to assert a new position in the world arena (Shvartz:14). A unique political possibility for Russia to take a strategic initiative is emphasized in the State Strategy for Sustainable Development as well (The Strategy:7). Otherwise, a low level of international cooperation on the issues of sustainable

[24] The importance of Russia's ecological potential for global needs sustains the fact that NATO initiated the conference on sustainable development of the Lake Baikal region in 1996 (see *Sustainable Development of the Lake Baikal Region* ed. By Valentin A. Koptyug and Martin Uppenbrink).

development "could limit the possibilities" of influencing the future world order, the document states (Ibid.:7).

These arguments demonstrate that the problems of the natural distinctiveness of Russia and its resources resonate to a high degree with the issues of the national security in the Russian sustainability discourse.

1.2.5. *Russian Scientific Heritage as a Theoretical Ground for the Concept.*

The important feature of this discourse are references to the authority of Russian and Soviet Russian scientists. Contemporary Russian scholars and scientists, as sustainability discourse agents often base their arguments on the theories developed during the pre- and post-revolutionary times in Russian and Soviet science. Russian scholars emphasize elsewhere the practical significance of sustainable ideas and their high scientific and research capacity (e.g. Kasimov et al. 2004, Molokanov 2004, Stepin 2006, Yakhnin 2006). Several concepts, elaborated by the Soviet scientists – noosphere (Vernadsky), ecological imperative (Moiseev), global ecological morality (Moiseev), co-evolutionary development with nature (Vernadsky, Moiseev), rational utilization of natural resources (Armand) – appear to frame the sustainable development discourse in Russia nowadays. The idea of noosphere was developed by Vladimir Vernadsky, the eminent Russian scientist, through his work in the first part of the last century.[25] Noosphere (or the sphere of reason) – is an utmost stage of in the evolutionary transformation of biosphere, when the scientific thought and reasonable activity of humanity become a crucial factor for civilization and biosphere development (cf. Vernadsky 2002, Moiseev N. 1999, Oldfield and Shaw 2006). The term 'the ecological imperative' suggested by the member of the Academy of Sciences Nikita Moiseev[26] (Moiseev N. 1999), demands a new environmental attitude and a new modus operandi towards the natural

[25] For more on the noosphere and Vernadsky see chapters 2 and 3.
[26] Nikita Moiseev – academician, one of Soviet Russia's leading environmental scientists and a promoter of Vernadky's ideas, with an international reputation in spacecraft dynamics.

environment. It implies the corresponding development of biosphere and humanity, where the objectives of biosphere conservation are preferred to the changing goals of the economy (Moiseev 1999, Molokanov:48). Nikita Moiseev and his colleges also put into practice the notion of global ecological morality (Ibid.:129).

Oldfield, in his research on Russia and sustainable development, points out the fact that the noosphere concept is used in Russian rhetoric "to encapsulate, and possibly supersede, the notion of sustainable development" (Oldfield 2001:107). At the same time, the researchers highlight the 'symbolic importance' of the noosphere concept (Oldfield and Shaw 2002, 2006), mostly due to the understated nature of the idea (Shvebs 1991, cf. Oldfield and Shaw 2002, 2006). This corresponds to the fact that the discourse practice seldom represents "an accurate rendering of Vernadsky's own work and ideas" (Oldfield and Shaw 2006:146).

The following theoretical variations on the theme of the noosphere can be traced in the Russian discourse of sustainable development today: noosphere science, noosphere worldview, noosphere democracy, noosphere society (e.g. Kuchukov and Savka 2001) and noosphere revolution(e.g. Muntyan 2000), noosphere civilization (e.g. Shvebs 1991), noosphere development, noospherology (a science of noosphere), noosphere statehood (theory of a harmonious state of the future) (e.g. Molokanov 2004), noosphere megacity, noosphere personality (e.g. Molokanov 2004), noosphere movement (e.g. Shvebs 1991). For example, the notion 'noosphere movement' means intellectuals sharing the same attitude to the ecological problems in the global context, and the emergence of the noosphere civilization as a restoration with its roots in Russian intellectual traditions (Shvebs 1991). In Russian political strategies, Vernadsky's ideas result in such notions as 'noosphere revolution' and 'Russia's start to the noosphere' (The Strategy:6).

The Russian sustainable development discourse and the associated official rhetoric employs the idea of the noosphere as an omega of a successful transition to sustainable society (e.g. The State Strategy 2002, Levin 2004): "The process of sustainable development 'starts' in postindustrial society, but finishes in the sphere of reason" (Muntyan 2000 as cited in Levin 2004, p.6).

In other words, noosphere is often referred to as some future for the humanity, based on reasonable partnership and harmonised relationship with the environment (e.g. Levin 2004). This perception reflects a socio-ecological approach and allows Russian researchers to argue for its concurrence with sustainable development. Moreover, the noosphere theory appears as an idea, which has been ahead of its time and now being in tune with the development of contemporary Western scientific thought. At the same time, unlike the pragmatically constructed concept of sustainable development, the noosphere paradigm goes further and represents humanity's critical re-evaluation of its historical role within the natural environment (cf. Levin:7). Oldfield and Shaw share this perception, arguing that sustainable development is "a far less sophisticated concept, lacking the historical depth and internal momentum of Vernadsky's noosphere" (Oldfield and Shaw 2006:151).

This drawing on the strain in the Soviet and Russian scientific tradition, which foreshadowed sustainable development, is described, for instance, in Levin's analysis in terms of "persistent and even obligatory references to Vernadsky" (Levin:7). As a case in point, about 40 projects, presenting strategies for the Russian Federation's transition to sustainable development, had been worked out for the all-Russian Conference on Environment Protection in 1995. Most of these strategies emphasised that Russia, like no other country in the world, was predisposed to start implementing sustainable development on the basis of Vernadsky's noosphere hypothesis (Rozenberg et al.:436). Even more, some researchers advocate making Vernadsky's theory a basis for developmental strategies and replacing a nebulous notion of sustainable development (Ibid.:436).

Even the Russian Buddhists believe that “the global perspective of humankind is an ecological civilisation of noosphere orientation” (Budayev, Mantatov:27). Considering that “the revival of the ecological ethics of the past centuries are the most important factors for the sustainable development of our region” (Ibid.:30).

As a matter of fact, the noosphere approach formulated by Nikita Moiseev implies that the transition to the noosphere requires deep-seated changes in both the actions and the morals of humankind and, in this sense, tends to complement some of the more comprehensive interpretations of sustainable development (Oldfield 2001:105).

Working out a basis for the transition to noosphere society, the Russian researchers even coined a notion of ‘noosphere revolution’ to signify the necessity of this transition (Levin:7). The notion of revolution is used to emphasize that the transition to noosphere implies complex and conflicting processes, affecting the very principles of civilization. Several Russian scholars share the opinion that revolution of the value system or ‘socio-psychological evolution’ could solve the most of global problems (Ibid.:10, Moiseev 1999). Some of them, such as A. N. Kochergin, emphasize that moral values should guide the natural sciences and technical innovations as well, and that science should be ‘humanized’ (Kochergin 1995 as referred to in Levin, p.10). Others, such as Kuchukov and Savka, claim that sustainable development is a new age in the historical process of human evolution, in which “technological revolution will be supported by environmental and humanitarian revolution” (Kuchukov and Savka:96). Molokanov also develops the ‘revolution argument’ in his monograph on system ecology and sustainable development. He proclaims the need for an informational environmental revolution as a means of transition to global biosphere thinking (Molokanov:145).

The theses about the role of human cognition and the power of intellect as a transforming force of civilization, that are embedded in the theories of Vladimir Vernadsky and Nikita Moiseev, describe the noosphere as a conscious intellectual

development (Vernadsky 2004, Moiseev 1999). The power of each person's intellect is an important part of global mind. Therefore, one's personal position influences the destiny of the whole society. Such statements mark out the responsibility argument. Ideas and actions of each person can become a decisive factor for evolution. On the other hand, the idea of sustainable development is "intuitively sympathetic to every responsible person" (Tarasova:21).

In Moiseev's theory, the responsibility argument is entwined with the revolution argument. The impulse, starting an avalanche of unrest, quest for meaning and understanding, should lead to tsunami that would force government and business elites to prevent the catastrophe in the interest of humanity (N.Moiseev referred to in Yakhnin 2006, p. 173).

Co-evolution with the natural environment is also an attractive theoretical position in the discourse. N. Moiseev has claimed that there is no alternative – "humanity should develop in co-evolution with nature" (N.Moiseev as cited in Yakhnin 2006, p. 170). The State Strategy for Sustainable Development echoes this view, emphasizing the need of 'sustainable co-evolutional methods of environmental management' (The Strategy:22).

A group of academics argues that the concept of sustainable development is a Western analogy for the historically prior Russian concept of the rational utilization of natural resources[27], being developed in Soviet science from the beginning of the 1960s (Kasimov et al.:36). In a way, due to the influence in its field, the theory of rational utilization of natural resources prepared the ground for the concept of sustainable development. This aspect is also singled out as a reason for positive response for sustainable development in Russia (Ibid.:36).

[27] For more details on this concept, see chapter 2.

The roots of sustainability in the ideas and philosophies that emerged in the socialist and pre-socialist periods (cf. Whitehead 2007, Oldfield and Shaw 2002) will be further expanded on in the next chapter.

1.2.6. *Moral Obligations and 'Cultural and Spiritual Needs'.*

Another important aspect of the sustainable development discourse in Russia is the pursuit of moral obligations and metaphysical (spiritual) and ethical issues. The discourse agents follow the thesis of Nikita Moiseev's moral imperative as a consequence of the ecological imperative (Moiseev N. 1999). This implies a new scale of values, a subsequent change of behavioral norms and even more – "reconstruction of consciousness" (Moiseev N.:174).

Moiseev notes as well that the requirements of 'the moral imperative' as a condition or guarantee for the ecological imperative are close to many of Gandhi's ideas (Moiseev N.:174). Pegov, developing Moiseev's approach, argues: "It is a seeming paradox that when humanity cares less for material problems and more for moral problems, possibilities for meeting material needs will become better" (Pegov:1087). Besides other problem-solving recommendations, it is crucial "to ensure rapid development of intellectual wants opposite to material needs and national policy, pointed to maintain and develop spiritual and cultural potential of people" (Pegov:1085). Moreover, spiritual development is named as a prerequisite of sustainable development (cf. Pegov:1087). The appeal of the concept of sustainable development in the Russian scholars' view, addresses even the meaning of *being* for humanity: "The concept of sustainable development is of great value, since it gives spiritual and cosmic meaning for our being" (Kuchukov, Savka:96), (cf. Yakhnin 2006).

The notion of 'spiritual and cultural needs' is a rare formulation in the sustainable development discourse on the global level. Oldfield and Shaw underline in their analysis that "the linking of sustainable development aspirations with 'spiritual' and cultural needs is rarely found in official Western rhetoric" (Oldfield and

Shaw 2002:396). The phrase ”cultural and spiritual needs of present and future generations” can be found only in Rio’s Statement of the Forest Principles and in chapter 11 of Agenda 21 (UNCED 1992).

The official Russian rhetoric refers to ‘the spiritual values and understanding of humankind’ as the principal criterion of ‘national and individual wealth’ (Presidential decree:5). The State Strategy for the Sustainable Development of the Russian Federation stands out for the aspect of spirituality and rectitude held up by the state to become the decisive factor for Russia’s transition to sustainable development (The Strategy:5). Taking up the objectives of sustainable development The State Strategy places emphasis on the realm of ethics, together with the other strategic spheres, such as science and technology, security or local development (The Strategy:5).

The importance of an ethical approach is underlined elsewhere in the discourse: “nowadays we should talk about the ethics of environmental protection” (Baranovsky:18). Likhachev campaigned for a “clear and acceptable philosophy of ecology, which could make a basis for ethics of ecology.” (Likhachev:95). At the same time, sustainable development “is a problem of adequacy, and adequacy is a notion of ethics”, so ethical principles should guide consumption in society (Pegov:1087). Blumenkrantz emphasises that the global crisis has not been caused by technological revolution; it is a result of deep processes in the moral bases of civilization, its desacralization (Blumenkrantz:180). That is why the fundamental problem of development is: “necessary progress of human qualities of a man, high moral values” (Golubev:36). So humanity has got the difficult task of fundamentally changing its ecological consciousness, as required by the biosphere’s development (Baranovsky:18). First of all, because “ecology is a moral problem” (Likhachev:94). So, the Russian scholars support the standpoint of V. Koptyug[28], namely, that “moral components of development, taking the

[28] Valentin Koptyug was the president of the Siberian Branch of the Russian Academy of Sciences.

culture and traditions of a specific nation into account, will play an increasingly vital role" when it comes ot sustainable development (Koptyug 1996:9).

The thought of unity of nature and culture becoming the common environment for the development of humanity is widely addressed in the Russian sustainability discourse (cf. Sokolov, Chelyshev 1992, Likhachyov 2007). Habitat conservation is naturally entwined with the protection of culture from degradation and responsibility for maintaining both natural and cultural spheres, because "culture has always been the main instrument for overcoming crises and humanity survival" (Sokolov, Chelyshev : 35).

As it was noted above, the Russian ideologists of sustainable development (academicians, natural scientists and scholars) stress the importance of elaboration of a new value system, if mankind is to survive. (e.g. V. Koptyug and V. Boiko in Moiseev S. 2004, Pegov 2004, Sadovnichy 2006). These should not be 'materialistic' or 'individualist' values, 'values of private property and free enterprise', these should be 'humanist', 'collectivist', 'spiritual', 'moral', values (i.e., something very reminiscent of the so-called traditional Russian or Soviet values) (Moiseev S.:173), (cf. the same accents in The State Strategy for the Sustainable Development 2002). A profound change is needed in the ethical orientation of Russian and subsequently global society, directed to "cultural and quality development, despite material and consuming" (Pegov:1084). This is a consequence of the fact that "the environmental demand is incompatible with this outdated worldview" (Mirzoyan:72) or "the outdated system of ethical norms and values" (Sadovnichy:14).

The rector of the Moscow State University expresses the view, common for Russian intellectuals, that "finally moral and ethical values will determine the path of civilization's development."[29] Moreover, technocratic means cannot

[29] Moreover, Mikhail Gorbachev, the last head of the USSR and the Peace Nobelian, founded after Rio an environmental organization Green Cross International to promote 'global value' change as the main principle for achieving sustainability.

become a keystone of these values: humanity should "choose a path of self-restriction and harmony with nature and life" to survive (Sadovnichy:14).

A radical change of values will define the transition to the new type of civilization (cf. Molokanov 2004, Stepin 2006). This type of civilization is often referred to as the 'noosphere civilization' (e.g. Shvebs 1991, Molokanov 2004, The State Strategy 2002). It is characterized by knowledge's new role – as a linkage between value and practical orientations of local communities – and by the new status of the natural environment, first of all based on its intrinsic value, its 'rights' and 'needs' (Shvebs:45). The project of the State Strategy for Sustainable Development of the Russian Federation also advances the idea of 'the noosphere civilization' as a new kind of civilization (The Strategy:22).

At the same time, a simplistic view of the post-industrial society makes sustainable development a continuation of existing technological progress, albeit limited with some conservation restrictions (Stepin:22). In this case, the problem of revaluation of attitudes is not a critical one (Ibid.:22).

1.3. *Concluding Remarks.*

The former Minister of the Environment and Natural Resources of the Russian Federation, V. I. Danilov-Danilyan[30], argues that the concept of sustainable development has become an empty slogan (Danilov-Danilyan 2002). Tarasova, explaining the same attitude, finds that the main problem nowadays is that the concept of sustainable development is being overused and disrespected Tarasova:21). It becomes a political catchword, with no regard to its social and scientific importance (Ibid.:21). On the other hand, the fact that Russia is involved in 'the broader project of cultivating positive environmental image at

[30] Viktor Danilov-Danilyan was as well a member of the Eminent Persons Panel, which was formed in the course of preparation of the World Summit on Sustainable Development in Johannesburg.

the international level'[31] regulates discourses and policies at the national level. The question is whether this image-making process results in the real make-over.

The following table of arguments outlines the main points which account for Russia's aspiration to discursive hegemony with regard to sustainable development:

Table 2. ***Table of arguments.***

Argument-Definition	***Explanation- Content***	***References***
The close affinity argument	The perceived "close affinity between Russia's 'customs, spirit and mentality' and the core concerns of sustainable development".	Presidential decree 1996, The State Strategy 2002.
The argument of the uniqueness of Russia and its traditions	"The roots of environmental concerns in this part of the world are much deeper."	Cholakov 2000, Barlybayev 2002.
The importance for biosphere stability argument	Russian ecosystems are making a valuable contribution to the stability of the planet.	Pegov 2004, Koptyug 1996, Ekologicheskaya Doktrina 2002.
The argument of the interdependence of the national security and environmental concerns	"Environmental concern should become an important aspect of strategy for raising competitive capacity of Russia."	Presidential decree 1997, Piskulova 2000.
The responsibility argument	Personal position influences the destiny of the whole society.	Moiseev 1999, Tarasova 2002.

[31] The insight of an anonymous referee for Oldfield and Shaw's 2006 analysis.

The value change argument *The noosphere revolution argument*	"The environmental demand is incompatible with this outdated worldview." The transition to noosphere implies complex and conflicting processes, affecting the principles of civilization existence.	Mirzoyan 1992, Sadovnichy 2006. Kuchukov and Savka 2001, Levin 2004, Moiseev 1999.

Comparing Western notions of sustainable development with 'Russian' views on the subject, we become aware of the striking difference in approaches. The pragmatic approach of Western rhetoric, aiming to ease at least some of the global tensions, contrasts to the Russian approach, hitching its wagon to the messianic star. But though they differ in kind of reasoning, the rules of the political game iron out the difference. Russian scholars suggest that the official State Strategy for Sustainable Development bridges the gap between the pragmatic objectives of the concept of sustainable development and the ambitions of moral and spiritual development of human and society put forward by the Russian philosophers (Molokanov:107). Here is a summary of the differences:

Table 3. ***Pragmatic sustainable development vs. idealized noosphere.***

Pragmatism of the "West"	Russian idealism
Instrumental approach	Metaphysical concerns
Practical strategies	Idealizing representations
Observable consequences	Emphasis on values
Realistic, emphasizes practicality	Pursuing national ideals
Rational humans	Enlightened individuals

Summary:

Accepting the Western concept of sustainable development, the Russian official state policy confirms its objectives and absorbs it into state strategies and legislation. At the same time, the idea of sustainable development in the Russian context appears to be less a global import but a local product. The Russian discursive agents figure out their own ways, charging the concept of sustainable development with distinctively Russian understandings. Further, as I have argued, the Soviet scientific legacy fuels much of the present sustainable development discourse in Russia. The discourse challenges the purely pragmatic logic of the Western approach and contrasts it to 'cultural and spiritual values' and ethical issues. And it encourages "caring for not only social and economic growth, but also spiritual growth" (Baranovsky:18). The main question is: is it just one more glorious story rather than actual reality?

Chapter 2.

Tracing Sustainability Ideas to the Russian Ecological Tradition.

…*marriage of ecology and national history.*

Zeev Wolfson

This chapter aims to place the sustainable development discourse in Russia in a larger historical framework, adding diachronic aspects to the analysis. This chapter will provide an insight into the Russian pre-revolutionary and Soviet Russian environmental thought and environmental concerns. The ideas of past will be reconsidered in the light of whether they fit the ideas of sustainability and sustainable development, or should be reconsidered with the broader objective of "finding common ground with pre-existing indigenous sensibilities and aspirations" (Oldfield 2005:71).

2.1. *Pre-revolutionary Holistic Theses. Russian Cosmism*.

Soviet power well deserved the image of a destructive force conquering nature for its industrial needs without restraint. In the global arena such an image led to a prejudice against any outflow of ecological ideas from within the borders of the Soviet Union both before and after the revolution. However, as Jonathan D. Oldfield argues in his monograph, the scientific community of the 19th and early 20th century was characterized "by a progressive and innovative scientific understanding of the connections between society and the wider environment" (Oldfield 2005:22). This is evidenced by the work of scholars and scientists such as V. V. Dokuchaev, D. N. Anuchin, P. A. Kropotkin and V. I. Vernadsky. Summerizing the work of these and other pre-revolutionary scholars, David Hooson argues that they were all characterized by their 'functional and integrated way of looking at the natural environment', their 'regional, integrated approach to geography, combining natural and human phenomena' and their 'concern for

environmental amelioration and social development' (David Hooson as cited in Oldfield and Shaw 2002, p. 396). The theoretical advances of pre-revolutionary Russian science – for example, the holism exemplified in the Russian philosopher N.O. Lossky's 1916 book, "The World as an Organic Whole" – established a conceptual framework for the idea of sustainable development which, due mostly to its political validity, retains its value in contemporary Russia.

The philosophy of Russian cosmism is referred to in the Russian sustainable development discourse as a forerunner of the concept of sustainable development (Stepin 2006, Molokanov 2004). Russian cosmism was a philosophical movement at the beginning of the twentieth century, based on the theories of evolution of society and nature. Its emphases were: an holistic perspective on the environment, a nationalist philosophy, the evolution of humanity and nature, messianism, and balanced ecological and spiritual development.[32] "The biosphere mission of humanity", "The meaning of existence on the Earth and the directions of society development" were the research issues (Molokanov:45, cf. Stepin 2006). The most important philosophers within this trend were N.F. Fedorov, K.E. Tsiolkovsky, V.I. Solovyev, D.L. Andreev and Bogdanov. Bogdanov is the founder of tektology, a forerunner of cybernetics. He stood for an holistic approach to all the natural sciences, based on the system of their relations and organizational principles (Molokanov 2004). N.F. Fedorov considered science to be a technological base for human and natural harmony supported in its turn by religion and art (Ibid.:46). Solovyev developed a theory of the unity of natural and spiritual realities for the planetary transition into a new quality of life (Ibid.:47).

Vernadsky's noosphere theory corresponds to the ideas of the Russian cosmists, but is expressed in the language of the natural sciences (Molokanov:37, cf. Moiseev N. 1988 in Molokanov 2004). Along with Vladimir Vernadsky, the Russian cosmists thought the mission of humanity was to become a real force

[32] Molokanov's monograph from 2004 addresses the ideas of the Russian cosmism more detailed.

determining the biosphere's sustainability (cf. Stepin 2006:23). The environmental ethics of Russian cosmism – the careful attitude to biosphere and influencing nature just according to the laws of universal harmony was opposed to the founding principles of the industrial society developing in the late 19th and beginning of the 20th century. The philosophers argued that the disoriented morality of industrial society would lead to interpersonal conflicts and to the unsustainability ('neustoichivost'') of planetary life (Molokanov:128, 130). The mission of Russia, as an historically significant nation between East and West, was to become a centre of spiritual revival in the conditions of global crisis (cf. Molokanov 2004). Russia in this reading should follow its own unique path.

2.2. *The Importance and Value of Integrating Knowledge*.

During the pre-Rio period, the different aspects of sustainable development were integrated in the Soviet scientific studies and discourses, programs of technical development and long-term economic forecasting. However, all those efforts were not encompassed by a single notion of 'sustainable development'.

In the course of the last decades, Russia has undergone considerable transformations, political, societal and cultural. Nevertheless, it is important to admit that scientific and cultural legacy of the Soviet Union is still influential and powerful in Russian society. This point is developed in J. Oldfield's study, in which he emphasizes the importance of the Soviet experience in shaping contemporary approaches to environmental issues (Oldfield 2005:4). To get a sense of direction in current Russian environmental thinking presupposes getting an insight into the ecological ideas of Soviet times.

Back in the 1920-1930s, dealing with geographical and environmental state forecasting, Russian scientists were aware of the discrepancy between the rapid growth of human needs and the importance of preserving natural landscapes (Mirzoyan:70). During those years an idea of a cooperative development of

industry and agriculture was worked out, including an integrated approach to nature conservation (Los':78). The historian Douglas Weiner calls the 1920s a 'golden age', when university education and scientific research resulted in formation of 'an entire generation of geneticists, ecologists, and experimental biologists of world rank' (Weiner as referred to in Guha 2000, p.127).

Vernadsky's pioneer study of the meaning and laws of the biosphere was developed and published in the 1920s. Its relevance for contemporary Western understandings of global ecological systems has been noted by a number of authors (e.g. Bailes 1990, Grinevald 1996, Samson and Pitt 1999). Semenov-tian-shansky, a Russian scientist and Vernadsky's contemporary thought nature to be 'indispensable for our future enlightenment and mental development' (Guha:128). He emphasized that society had a 'great moral obligation toward Nature' (Ibid.:128).

The fact that scientists and their societies "were encouraged by the Soviet dictator Vladimir Illyich Lenin" is emphasised by Ramachandra Guha in his monograph (Guha 2000). Lenin was the brother of a biologist and a trekker and nature-lover himself (Guha:128, cf. Bogolyubov 1987). Even more, he is credited with the decreeing and establishment of a vast number of nature conservation areas. An extract from Lenin's letter to Baku confirms his visionary ecological concerns: "We pump water (oil formation water), why don't we use it for field irrigation? Why don't we use the north wind for wind turbines? Does anyone consider this opportunity and go at these problems properly?"(Vladimir Lenin, Complete works, v. 52, p. 124 as cited in Bogolyubov 1987, p.9)

The academic debates in the middle of the Soviet period emphasized the compatibility of economic growth and environmental protection. Still to the highest degree it was the Soviet state that directed scientific research. Soviet high officials legitimised grand projects of limitless development that were to have a disastrous or even irreversible influence as a shortcut to a glorious future – the socialist paradise. Violation of human rights on the path of "breakneck

industrialization" (Guha:125) was explained by the 'encirclement' by the capitalist powers. "Ecocide in the USSR stems from the force, not the failure, of utopian ambitions", in this reading (Feshbach and Friendly:29). Soviet leaders, retaining their mania for miracles, were fixated on conquering nature and subordinating human welfare in the project to build an all-powerful socialist state – over the dead bodies (Ibid.:29).

Those who promised immediate results and unrestrained growth of harvesting capacity were opposed by the scientists who stood for revealing 'natural limits to environment transformation' (Los':79). The theoretical arguments of the Soviet geographer Anuchin coupled with the innovative work of Soviet scientists in areas of ecology and related disciplines indicate that intellectual discussion persisted during the Soviet period in spite of the restrictive nature of the Soviet regime (Oldfield 2005:38). In his 1960 book, 'Theoretical problems of Geography' (Anuchin 1977, cf. Oldfield 2005) Anuchin advanced a more developed understanding of the relationship between nature and human society. The debate concerning nature-society interaction moved forward with his ideas that human society should be considered an integral element of the geographical environment: "every element of the geographic environment, from relief to human society inclusively, is associated with every other in the most tightly knit fashion" (Anuchin:177). His thesis went beyond the rigid separation of the two spheres prevalent at the time and simultaneously advanced an acknowledgement of nature's potential influence on the development of human society (Oldfield 2005:37). Anuchin also stressed that the history of nature and the history of human society "condition one another" (Anuchin:174). Just as "the distinctive features of a country's historical development and of its nature" are of great importance for country's economy (Ibid.:176), so "the geographic environment is simultaneously a condition and a material source of social development" and thus needs a proper strategic approach (Ibid.:180). Long-range planning of regional economies on the state level and creation of public organizations with the task of uncovering local resources and conditions for the needs of economic practice and

the conservation of nature (Anuchin:285) sounds in tune with the objectives of the Local Agenda 21.

As a logical consequence of these trends, a concept of the rational utilization of natural resources was elaborated at that time.

2.3. *Environmental Protection and the Rational Utilization of Natural Resources.*

The originator of the theory of the rational utilization of natural resources is Soviet geographer and environmentalist, D. L. Armand. His book, “To Us and our Grandchildren”, meant to give an alternative view on the utilization of natural resources, was published in 1964. It is remarkable that Armand's manifesto of the ‘sound stewardship of nature’ bears considerable similarity to the Brundtland Report. Even the book’s title sounds like an “aphoristic interpretation of the concept of sustainable development” (Kasimov et al.:30). The idea of inter-generational equity is highlighted at the end of the book as well, where it sounds strikingly similar to “Our Common Future”: “The moral obligation of every generation is to leave environmental assets increased and in better condition than it gained from the previous” (Armand 1964 as cited in Kasimov et al., p.30). The other ideas on ‘the increased costs on restoration of natural resources’ and on the topic that sound stewardship of nature allows no loans that our descendants can pay back are also made a point of in the Brundtland Report.

The concept of the rational utilization of natural resources was further developed by the scientist and writer Y. K. Efremov. Armand and Efremov were among those who worked out the first integrated conservation legislative act (Kasimov et al.:31). Besides the idea of integration of conservation, utilization of natural resources, and state and society responsibility for environment conservation, Efremov was persistently defending the necessity of ecological and economic integrity for the maintenance of natural resources (Ibid.:31).

The theoretical and philosophical framework for the concept of the rational utilization of natural resources was worked out by V. A. Anuchin. He insisted that the nature-society interaction can only be improved if human society integrates into the planet's natural cycles. Anuchin considered the rational utilization of natural resources to be a multidisciplinary ideology intended to guide the development of the Soviet society (Kasimov et al.:31).

Eco-centric strategies for nature-society interaction, equal intra- and inter-generational distribution of natural resources, limited exploitation of non-renewable resources, minimising industrial and consumption waste and anthropogenic risks, "ecologization" of society[33], charging resources utilization – these are some of the basic principles of the theory of the rational utilization of natural resources (Ibid.:33).

Since the early 1970s, the conceptual framework and principles of the theory of the rational utilization of natural resources had been used in legislative and regulatory acts, as well as in the Constitution. The state environmental goals from 1985 state the importance of increasing the effectiveness of environmental-protection measures, improving the protection of the earth's interior and the comprehensive utilization of mineral resources. The other aspects are work on the protection, reproduction and rational use of the plant and animal world and on instilling in "the Soviet people a sense of high responsibility for the conservation and multiplication of natural resources and their thrifty utilization" (as cited in Pryde : 15, 16). This period witnessed the establishment of new schools of research on nature-society interaction – disciplines such as medical geography, human ecology, space earth sciences, urban ecology, recreational ecology, environmental planning, and social ecology (Kasimov et al.:31). Comparing Eastern and Western ecological traditions, Kasimov et al. examine the fact that environmental demand is seamlessly integrated in many Eastern cultures.

[33] Integrating environmental ethics into state policy, production styles and everyday life.

(Kasimov et al.:33) In Russia, placed between East and West, “the ideology of sustainable development in distinctive form was worked out even earlier than its Western counterpart” (Ibid.:33). Sketching the stages of Russia’s transition to sustainable development, the Presidential decree “Concerning the Concept of the Transition of the Russian Federation to Sustainable Development” brings two concepts, sustainable development and rational utilization of natural resources, together. It indicates that, on the next stage of Russia’s transition to sustainable development, environmental well-being “should be maintained, first of all, by the rational utilization of Russia’s rich natural resources” (Presidential decree 1996:7).

2.4. *Social Ecology.*

Social ecology developed in the Soviet Union at the beginning of 1980s. It was formed as an interdisciplinary trend, bringing together ecologists, geographers, economists and philosophers. The first national conference on social ecology was held in 1986 in Lvov and proved the reality of this interdisciplinary subject. Oldfield and Shaw express in their research that “during the later Soviet era the emerging discipline of social ecology had considerable affinity with contemporary sustainable development in its call for a ‘socio-economic-ecological equilibrium” (Oldfield and Shaw 2002:396). Social ecologists advocated ‘environmental science socializing’ (Shvebs:42) with a paradigm shift towards eco-centric understanding and environmental friendliness.

2.5. *Cultural Ecology.*

Cultural ecology was an outcome of the same wind of change that started social ecology. Holm-Hansen reveals in his research that the concept of “cultural ecology” is not widely known outside the Russian context in which it originated

(Holm-Hansen:113). A rising tide of intellectuals in the Soviet Union's early 1980s advocated conservation of both natural and historical monuments. They saw national cultural traditions, the spiritual unity of humanity and nature, and the finding of the new environmental ethics as a counter to the technocratic orientation of modern civilization. Like Shtil'martk, they were convinced that "the aesthetic (ethical or emotional) approach is somehow invisibly present in all matters linked with nature protection, even if arguments of a completely different cast are uttered or written" (Shtil'mark F.R. as cited in Weiner, p.62). Even more, the productive activity of such prominent biologists as G. A. Kozhevnikov, I. P. Borodin, V. N. Sukachev, and many others, including N.I. Vavilov and V. I. Vernadsky, "drew their inspiration from feelings of deep love for the nature of their birthplace, from that 'emotional-ethical factor'"(Ibid.:62).

Those conservation activists included a number of eminent persons: Sergey Zalygin[34], hydrologist and editor in chief of Russia's leading literary periodical, Dmitry Likhachev[35], the outstanding historian of medieval Russian culture, and Vladimir Chivilikhin, journalist and writer. The latter, along with the ethnographer Lev Gumilev, believed that the major sources of life, hope and meaning are the people's national memory, especially their shared environmental experience (Weiner:334). Dmitry Likhachev also emphasized the importance of national cultural heritage and argued that ecological disaster zones in fact stretch to theatre repertoire, economic order and relations between the natural sciences and the humanities (Likhachyev:93)[36]. Likhachev emphasised that the concept of culture should include science, technology and education (Likhachyov:9). Gumilyov, Chivilikhin (Weiner 1999) and Likhachev (Likhachev 2007, Holm-Hansen 2005) all developed a notion of the 'ecology of culture'[37].

[34] Zalygin was as well the President of then-founded Ecology and Peace Association, with the motto 'Only the Public can save Nature' (Guha :135).
[35] Likhachev spearheaded the opposition to the River Diversion Projects. Moreover, his contribution to stopping the projects was crucial.
[36]Cf. Samson and Pitt 1999, p. 186 : "The environmental movement is therefore central to the noosphere, alongside the preservation of cultural heritage."
[37] Dmitry Likhachev coined this term in the late 70-s (Likhachyov:423).

This cultural trend also involved a number of patriotic writers. These writers defended ethical values, escape from industrial sites, historical memory and inter-generational obligations. For novelist Vasiliy Belov, the village was 'the wellspring of morality, religious meaning, and harmony with the natural environment, and, moreover, the only reliable medium through which these values can be transmitted to future generations' (in Guha:136). The interconnection of historical memory and ecological sustainability is underlined in the writings of their contemporary, Yuriy Bondarev. The destruction of architectural monuments, violence to the earth and rivers, as well as a lack of a morality in science and criticism, all pointed to disastrous consequences: the destruction of the national culture and the disappearance of historical memory (Bondarev as referred to in Guha 2000, p.136).

The position of cultural ecology was supported a decade later in the official State Strategy for the Sustainable Development of the Russian Federation. The State Strategy highlights the importance of conservation of national socio-natural landscapes for the global transition to sustainable development (The Strategy:21). The maintaining of socio-natural landscapes is aimed at achieving equilibrium between human existence, spiritual needs and natural environment (Ibid.:21).

2.6. *Noosphere Theory and its Intellectual Resource. Reception of Vernadsky and his Ideas.*

Generations of Soviet and Russian scientists and scholars have been inspired by the fruitful ideas of Vladimir Vernadsky. His scientific concept of the noosphere has stimulated debate on society-nature issues and has even been entwined with the national idea. The 125th Vernadsky anniversary in 1988, celebrated both in the USSR and other countries, renewed interest in the noosphere theory. A line of

conferences[38] that year resulted in several anthologies on the problems of the noosphere and global development (Yanshina:1016).[39]

The academician Nikita Moiseev, developing the theory of noosphere, argued in 1987 for a science based on 'new ethics and new morals'(Moiseev 1987 as cited in Samson and Pitt 1999, p.56). Moiseev advocated a new holistic science – 'the science of humankind' (Ibid.:169), characterized by the ideas of unity and deep-seated interdependence. Moiseev was one of Russia's leading environmental scientists and an enthusiastic promoter of Vernadsky's ideas. As a collaborator in a UNESCO research project in 1989, he provided an overview of the noosphere perspective in his piece, "Reflection in the Noosphere – Humanism in Our Time". Moiseev argued that the ideas of Vernadsky had practical significance for alternative paths of human development and a new view of the world (Moiseev 1989 in Samson and Pitt 1999:168). This is because "the practical reconstruction of the worldwide order" is required (Ibid.:171). He underlined the fact that the concept of noosphere is also "the concept of a new humanism", a new scientific paradigm requiring active social participation (Moiseev N.:168). A new way of life based on "the new morality of contemporary humanism" is inevitable (Ibid.:170). This new morality, in its turn, must be based on two key ideas "concerning the unity of humankind and its responsibility for the fate of the planet and, above all, of the biosphere" (Moiseev N.:170).

In fact, the deep concept of noosphere was not fully developed by Vernadsky and lacks scientific rigour (Shvebs 1991). Instead, the foundational nature of the idea explains its general status as a symbol in the discourse (cf. Shvebs 1991, Oldfield and Shaw 2006). At the same time, Vernadsky's evolutionary perspective and the value of his ideas confirms that his framework and approaches were unique for his time (Shvebs:38).

[38] "Noosphere – the Present and Future of Humanity", "Russian Cosmism and Noosphere", "Philosophical Roots of Vernadsky's Theories of Biosphere and Noosphere".
[39] Cf. Samson and Pitt 1999 describe that the 'noosphere' term was often used for conference themes and even the name of research institutes.

2.7. *Role of Science and a Scientific Approach.*

The Russian environmental movement has had "strong links with science for more than a century" (Kotilainen et al.:63). Douglas R. Weiner in his comprehensive monograph on Russian nature protection points out that "the scientific high intelligentsia tradition in nature protection monopolized the field for many decades" (Weiner:443). Meanwhile, the scientific public opinion was for many decades "the only relatively autonomous public opinion in the Soviet Union" (Ibid.:443). The Soviet ecology movement could even be credited for its role in the state transformation and stimulating democracy processes. Its members had enough civic courage to reveal the harm that irresponsible strategies and actions of state officials were brining and "...evidence of man's inhumanity to man and to nature" (Feshbach and Friendly:xvii).

In Vernadsky's opinion, scientific thought should condition the transition to the noosphere civilization (Shvebs:40). Environmental advocates in the USSR "endorsed such 'modern' notions as closed-cycle technology, resource efficiency, and cost-accounting procedures that take environmental externalities into account" (DeBardeleben and Heuckroth:50) (cf. the same opinions in Bogolyubov 1987, p. 95, in the Party XXVII Congress' resolutions). Besides, some unconventional institutions dealt with the issues relating to problems of sustainable development in the USSR. The Space Committee of Voluntary Association for Assistance to Army, Aviation and Fleet catalogued and published an overview of scientific theoretical assignments, "The Project of the Future Planet Earth" (Molokanov:298). Organizations like The Institute of Energetic Inversion – founded in 1968 to research, among other issues, the terms for the balanced development of society and nature - were registered in it (Ibid.:298). In 1986, the Central Institute for Economy and Mathematical Sciences of the Soviet Academy of Sciences published a monograph, "Regional Stewardship of Nature – on the way to harmony", based on many years of research (Lemeshev et al.

1986). Its main objective was to establish a consistent methodology for developing local nature conservation programmes.

2.8. *1980-s.The Official Efforts that Preceded the Sustainability Debate.*

The allusion to notions of sustainable socio-economic development and to both intra- and inter-generational equity can be traced back to 1980s Party Congress resolutions, Soviet Academy of Sciences documents and themes from workshops of political propagandists. The documents of the XXVI Party Congress reveal the relevance of the rational utilization of natural resources, considering their value as irreplaceable riches.[40] Moreover, the emphasis is placed on responsibility before current and future generations.[41]

The same year as Our Common Future was published (1987), the Soviet Academy of Sciences prepared an interdisciplinary "Program for Biosphere and Ecological Research by the USSR Academy of Sciences Over the Period to 2015" as an effort to improve ecological understanding. This Program was meant to "occupy a prominent place in the major international geosphere-biosphere program, 'Global Changes'" (Pryde:286). This indicates the USSR's efforts to formulate its own agenda similar to the Brundtland Report. It is remarkable that, the same year, the techno-economical strategy for city development stated the necessity of establishing a 'strong environmentally sustainable system' in Moscow by 2010 (Bogolyubov:22). And the published program of the environmentally perfect city, "Ecopolis", was very similar to that of the Biosphere 2 project. Biologists, physicians, psychologists, sociologists and architectures were required to take part in that ambitious plan (Ibid.:67-69).

As well, during the late 1980s, the tutorial workshop on philosophical problems of socialist stewardship of nature (which addressed such problems as the

[40] The documents of the XXVI Party Congress as referred to in Lemeshev et al. 1986, p. 6.
[41] Ibid.:6.

environmental capacity, coordination of national and international efforts and their practical benefit) was well-attended by political propagandists and Party lecturers (Bogolyubov:136).

The first inter-governmental conference on environmental education was held in 1977 in Tbilisi, where, among other problems, the role of the UNESCO was discussed (Bogolyubov:137). The Conference declaration stated that humans' ability to transform nature had speeded up the disruption of ecological balance[42] and that only if the future consequences of today's actions are kept firmly in view can fruitful ecological development be assured (Ibid.:138). In 1987 Moscow hosted the conference "Tbilisi10+". This can be compared with the United Nations' "Rio" and "Rio10+". The main issues addressed at the Moscow conference were the historical approach to the problem (traced as far back as the Roman philosophers) and scarcity of natural resources during crises (Ibid.:138).

2.9. *The Place of Environmental Concerns within the Logic of the Soviet System.*[43]

While the discourse reveals 'the historical richness of Russian ecological thought', reality itself – both in the Soviet time and in Russia today has been a sheer contradiction of all the postulates, reports, agreements, and visionary projects. 'The international face of Soviet concern for the environment' (Weiner 1999) and national ecological propaganda was contradicted by local environmental disasters caused by politically benighted economic ambitions.

Political leaders hungering first for economic miracles and later for military power (Feshbach and Friendly:31), have been destroying both social justice and the protection of natural resources. The regime's "...vulgar materialist principles that inescapably shaped the destructive consumerist attitudes toward nature" were

[42] In line with Vernadsky.
[43] Referring to Guha 2000.

"…sugar-coated in a demagogic ideology about its transformation in the interests of people" (Shtil'mark and Heptner as cited in Weiner 1999, p. 136). While journalists, writers, scientists, citizen-activists alarmed the dimensions of catastrophe, "…the self-defeating logic of utopian totalitarianism could tolerate only facts that served and bolstered the myth" (Feshbach and Friendly:31).

Weiner argues that the Soviet case demonstrates that the social meanings of "environmentalism" are highly variable social constructs, even in the same society. Similar-sounding discourses employing some of the same terms and ostensible referents can have entirely opposite political implications (Weiner:401).

In his Global History of Environmentalism, Guha argues that the ideology of state socialism is antithetical to environmentalism (Guha:134). "Its arrogant desire to conquer nature, its system of central planning in which pollution control comes in the way of the fulfillment of production targets" (Ibid.:134) led to the handling of the natural environment as "a means of meeting society's material needs" (Los':79). Most of all, though, "state socialism has inhibited environmentalism by throttling democracy, by denying to those it rules over the basic freedoms of association, combination, and expression" (Guha:134) (cf. Los' 1992). So, in a way, suppression and restraint of creative thought are the main negative environmental outcome of the Soviet era.

Both V.Vernadsky and N. Moiseev placed an emphasis on the value of democracy and civil society in the transition to noosphere (Moiseev 1999, Vernadsky 2004). Vernadsky's assertion of the primary value of freedom of thought in science and human creativity was precursory to Amartya Sen's idea of Development as Freedom (Sen 1999). It is tragic indeed, that the best traditions of the Soviet and Russian environemntal and humanist thought, have been detonated by the authoritarian state which has specialized in genocide and ecocide.

Summary:

Proto-sustainability ideas and holistic approaches to the society-nature interaction have been reviewed in this chapter in relation to relevant philosophical movements and official Soviet policies. Russian cosmism and the cultural ecology movement during the late Soviet period appear as unique indigenous cultural trends. The analysis reveals that ideas analogous to the concept of sustainable development have roots in nineteenth-century Russia although they have had diverse philosophical and political connotations. While the contemporary environmental discourse in Russia reveals 'the historical richness of Russian ecological thought', chronological analysis allows us to reveal the chronic gap between rhetoric of humanism and environmentalism and reality of environmental disasters and violation of human dignity throughout Soviet Russian and Russian history.

Chapter 3.

Holistic Ideas. Vladimir Vernadsky Thought vs. Sustainable Development.

We are witnessing a reassessment of old ideas.

Paul R .Samson and David Pitt

At some future time, the death of the modern Westphalian system and the beginning of a post-modern consciousness may be given as 1926, the year in which the Russian ecologist Vladimir Vernadsky published The Biosphere.

David Orr

This chapter will review the legacy of the prominent Russian scientist Vladimir Vernadsky. A tribute to Vernadsky in this thesis is determined by the authority of his ideas for Soviet Russian environmentalism and contemporary debates on sustainable development. The analysis will be focused on comparing the two holistic ideas, namely, Vernadsky's noosphere and sustainability. The holistic views of Vladimir Vernadsky and his theories of the development of civilization will be here enriched with the ideas of contemporary environmental scientists and thinkers.

3.1. *Holistic Views and Original Ideas of Vernadsky.*

The twentieth century was marked by attempts to reflect the meaning of the world and to interpret it as a system/whole with its own rules and codes. Jan Smuts' holism, the holistic environmental ethics of his opponent Mahatma Gandhi, Buckminster Fuller's theory of synergetics and James Lovelock's 'Gaia hypothesis' have all in a way been absorbed into the über-concept of sustainability. All these unifying approaches refer to the idea of biosphere as an evolved whole.

The prominent Russian scientist Vladimir Vernadsky was the original pioneer of biosphere science. His stimulating ideas and views on nature and his prophetic visions on evolution are still relevant today. Vernadsky was among those intellectuals who first managed to illuminate the shift in global civilization (Shvebs:40).

Most scientists would use a lifetime to elaborate one important theory. Vladimir Vernadsky (1863-1945) not only filled the gaps that existed in science in his time, he developed new approaches and principles in mineralogy and geology, and laid the foundations for hydrogeology, biogeochemistry and radiogeology. The scientists following in his footsteps consider that Vernadsky did for biological space what Darwin did for biological time[44]. Vernadsky belonged to that remarkable group of Russian researchers and thinkers who flourished during the last decades of the nineteenth and the first decades of the twentieth century and whose contributions proved so important for the progress of many disciplines because of their bold departures in new directions. The group's most illustrious names include Dimitri Mendeleev, the author of the periodic table of elements; Vasili Dokuchaev, the founder of modern soil science, Ivan Pavlov and Ilya Mechnikov, Nobelians (1904 and 1908) in medicine and physiology; Konstantin Tsiolkovsky, the visionary pioneer of space flight; and Sergei Winogradsky[45], one of the creators of modern microbiology (Smil:3).

Vernadsky is acknowledged as the originator of a new paradigm in life studies. He bridged the gap in understanding what is animate and what is inanimate in nature, found the earth's links with the cosmos, discovered the 'Breath of Earth', properly assessed the geological consequences of human activities, showed the cosmic significance of biologic life on Earth, and revealed science as 'a natural phenomenon' (Vernadsky 1998, Samson and Pitt 1999).

[44] Foreword toVernadsky 1998, p. 18
[45] Winogradsky is referred to in Le Roy's writings from 1927 as a discoverer of a new factor in the structure of the biosphere, which contributed to a function of wholeness (cf. Samson and Pitt 1999 : 103).

Vernadsky's work provided a new approach to understanding nature as a whole, rather than just opening new directions in the development of sciences. In his book 'The Biosphere' published in 1926, proceeding from his own interpretations of the nature of living matter, Vernadsky worked out a theory about the biosphere. He argued that the biosphere plays a planetary role and that creatures on Earth are the fruit of extended, complex processes, and are an essential part of a harmonious cosmic mechanism (Vernadsky 1998:44). Bailes points out that many of Vernadsky's ideas are so well known today that they often seem self-evident and it might be easy "to forget their freshness and originality in his own time" (Bailes:195).

3.2. *Noosphere*.

The term 'noosphere' is considered to have been coined by Edouard Le Roy in 1927, building upon Vernadsky's ideas and discussions with Teilhard de Chardin.[46] In 1922, Vernadsky was invited by the then Rector of the Sorbonne University to the Soviet Academy of Sciences to lecture in France and to work at the Muséum d'histoire naturelle (with A. Lacroix) and at the Institut du Radium (with Marie Curie). In France he became acquainted with Le Roy and Chardin. His book 'Biosphere' (1926) was written mainly in France. Vernadsky spent approximately five years in France, lecturing in geochemistry and doing research. For Vernadsky, the idea of the noosphere was a logical consequence of his study of the biosphere. The word 'noosphere' was coined in analogy with the 'geosphere' and 'biosphere', from Greek 'νους' meaning 'mind', and can be seen as a 'sphere of human thought' or 'sphere of reason'. The crucial point with this interaction of ideas is that Vernadsky not only accepted the notion of noosphere

[46] Though the theory of noosphere was built upon the ideas of Vernadsky, the elaborations of the concept by Teilhard de Chardin have become more popular or *known* in the West and he is even considered to be "a key figure for the alternative communities" (Macy and Bonnemaison: 319), due to them.

suggested by Le Roy, but enriched it with his own vision and with a 'more precise meaning'(Bailes:194).

In Vernadsky's original theory, the noosphere is the third stage of evolution, after the geosphere (inanimate matter) and the biosphere (biological life). The noosphere emerges out of a geosphere dominated by human reason and conscious work activity - which are rapidly changing the chemical structure of the biosphere (cf. Bailes:194, Vernadsky 2004). Thus Vernadsky's noosphere thesis unites the two areas – geosphere and biosphere – that he spent his life researching. Vernadsky considered the noosphere concept to be an important part of the science of the biosphere.

Vernadsky considered that the evolutionary process had created a new geological force: "the scientific thought of social humanity" (Vernadsky 'Scientific Thought as a Planetary Phenomenon' as cited in Samson and Pitt 1999, p. 95).

We are witnessing the manifestations of this force through an intense growth of influence of the living matter of one species (civilised humanity) on change in biosphere conditions. While "under the action of scientific thought and human labour" the biosphere is transformed into "a new state – the noosphere" (Ibid.:95). But at the same time Vernadsky hoped that "scientific knowledge, manifesting itself as a geological force creating the noosphere, cannot lead to results contradicting the geological process that created it" (Ibid.:95). Vernadsky believed that the strength of mankind is derived from its consciousness, its brain. An immense future is open before man, if he understands it and does not use his brain and his work for self-destruction (Ibid.:97).

3.3. *Interpreting Noosphere.*

The term 'noosphere', the word that "most of all holds the key to the future" (Moiseev N.:171) - is often substituted in the discourse with the explanatory phrase, 'sphere of reason'. The emergence of the noosphere necessarily has "to

be accompanied by the perfection of the bearer of reason, i.e., the human being and human society", pointing to new conditions emerging on Earth (Moiseev N.:170). The Russian notion *razum*, which in the thought of Vernadsky could possibly bridge and unite science and spirituality (cf. Samson and Pitt 1999), has been differently interpreted in English-language discourse. The following examples can be found in the literature, referring to Vernadsky and the realm of the noosphere: sphere of intelligence (Budyko 1986), sphere of mind or intellect (Samson and Pitt 1999), realm of thought (Clark and Munn 1986).

In their first publications, Oldfield and Shaw referred to noosphere as a 'sphere of wisdom' (Oldfield 2001, Oldfield and Shaw 2002). But in their 2006 article they suggest that, due to Vernadsky's emphasis on the importance of scientific thought, 'sphere of reason' embodies a more appropriate English translation (Oldfield and Shaw 2006:146).

3.4. *Noosphere Development.*

Krumbein W.E. and Lapo A.V. in their article on the biosphere and geophysiology associate noosphere with "the step from intuitive, mythological or unconscious life processes" to the attributes of life usually relating to humans (Krumbein, Lapo:132). They expound Vernadsky's vision and find that noosphere development might entail environmental engineering, problem solving and transcendence, discovery, creation and use of newer and subtler, more complex and more diverse natural phenomena, development of refined natural economy or 'natural history', waste management, systems development, quality control and self-repair and even self-reflection (Ibid.:132, 133). At the same time, they regard as imponderable, and leave for the future, the problem whether man and his mindful and purposeful activities contribute to the living matter system and its geophysiology or whether man serves as the initial point of the noospheric development (Ibid.:133).

The 1981 work of the Soviet scientist Yanshin on the biosphere's transformation into noosphere is based on the principal concepts of Vernadsky and describes the

conditions which, when fulfilled, lead to the formation of the noosphere. Yanshin formulates these conditions as follows:

- Mankind has become a completely integrated unit. The history of mankind has embraced the entire Earth as a single unit, thus completely replacing the indigenous and historically isolated cultural regions of the past.
- The means of communication and exchange of information have been transformed. The noosphere is an orderly functioning unit, whose parts are harmoniously linked and act together at all levels.
- New sources of energy have been discovered[47].
- All people are equal. Embracing the entire planet as a whole, the noosphere by its very essence cannot be the privilege of a singe nation or race. It is produced by the skill and mind of all nations.
- Wars have been excluded from the life of human society. War is the greatest obstacle to the development of the noosphere. With the elimination of war, mankind will have made a great step towards the noosphere.
- The noosphere is the result of the two greatest revolutionary processes of our time - progress in scientific ideas on the one hand and in social relations on the other (Yanshin 1981 as cited in Budyko 1986 p. 294).

Notwithstanding the inevitability of the noosphere as "the last of many stages in the evolution of the biosphere in geological history" (Vernadsky 'Scientific Thought as a Planetary Phenomenon' as cited in Samson and Pitt 1999, p. 95), Vernadsky underlined that the noosphere was not "a fortunate destiny, but an act of humans' will and intellect" (Vernadsky as cited in Yakovlev 2005, p. 38). Placing humanity in the centre of his noosphere theory, Vernadsky initially emphasized the necessity of responsibility, control, and the conscious direction of development. Thus 'the energy of human culture' (Vernadsky 2004:387) becomes a global force, transforming the geosphere. The crucial factor is that "the whole thing is determined by a human personality" (Vernadsky as cited in

[47] Vernadsky advocated the discovery of hitherto hidden sources of energy (cf. Bailes 1990).

Shvebs 1991, p. 40). As such, civil democratic society could become the most adequate social environment for “the burst of scientific creativity” as “the first necessary precondition” (Ibid.:39) for the development of noosphere. But at the same time, scientific activity is deeply entwined with the other domains of human action and “…activity layoff in art, religion, philosophy or public life, no matter which, influences science in a pathogenic or even repressive way” (Ibid.:40).

3.5. *The Status of Vernadsky’s Ideas in the West.*

As a matter of fact, “comparatively little is known about Vladimir Ivanovich Vernadsky in the West” (Oldfield 2001:104) and he is seldom credited there for his visionary theories. There are exceptions, such as the opinion of William C. Clark, the leader of the first phase (1983-1987) of the interdisciplinary research project on ‘Ecologically Sustainable Development of the Biosphere’ in Austria. He believed that "Vernadsky's perspective was even deeper and more prophetic” (Clark and Munn:10). Clark paid Vernadsky’s ideas their due and agreed with his claim that the most significant aspect of man's development was not his technology *per se*, but rather the sense of global knowledge and communication engendered by that technology (Ibid.:10). This claim was supported by Vernadsky’s vision of humanity becoming a large-scale geologic force, whereby “the face of our planet, the biosphere, is being sharply changed by man consciously, and even more so, unconsciously”(Vernadsky 1945 as cited in Clark and Munn 1986, p. 10). Natural philosophers Nicholas Polunin and Jacques Grinevald supported Vernadsky’s idea that “the Biosphere is emerging as a vital overall reality that we need to maintain intact” (Polunin, Grinevald:45). They appreciated the fact that “nobody appears to have had, or anyway developed and published, these ideas until they were so clearly enunciated by Vladimir Ivanovich Vernadsky less than seventy years ago” (Ibid.:45).

Jacques Grinevald admits:

> Our ignorance of Vernadsky reminds us of our lack of knowledge of the history of ecology in Russia and the part played by Vernadsky's biosphere concept in the rise of the Soviet tradition of environmental studies and global ecology (Grinevald:42).

Elisabet Sahtouris argues that though a conception of the underlying unity of life and non-life is actually not new to science, it has not been taken very seriously in the West outside physics (Sahtouris Elisabet *The Gaia Controversy: a case for the Earth as an Evolving Organism,* p.327 as cited in Grinevald 1996, p.46). She confirms the fact that Vernadsky's work was unknown to the authors of the Gaia hypothesis until well after they had formulated it, though it had been supported in the U.S. by the Yale scientist G. E. Hutchinson (Ibid.:46). The biogeochemistry of the Earth (conceived as a unity) also implies Lovelock's Gaia hypothesis. Significantly, in a book review of the English translation of Vernadsky's 'The Biosphere' in 1986, James E. Lovelock declared:

> When Lynn Margulis and I introduced the Gaia hypothesis in 1972 neither of us was aware of Vernadsky's work and none of our much learned colleagues drew our attention to the lapse. We retraced his steps and it was not until the 1980s that we discovered him (Vernadsky) to be our most illustrious predecessor (Lovelock 1986 for *New Scientist* as cited in Grinevald, p.42).

At the same time, international neglect of the Gaia hypothesis and Vernadsky's work – at the so-called 'Biosphere Conference' in Paris in September 1968, at the first International Conference on the Environmental Future in Finland in 1971, and at the 1972 Stockholm Conference – has been illustrating "…a vast ignorance concerning the fundamental holistic concept of the biosphere" (Grinevald : 46).

The late 1990s witnessed important efforts to introduce Vernadsky's work to the Western public. These attempts include the first full English translation of

Vernadsky's 'The Biosphere' (Vernadsky 1998) and the detailed insight into the biosphere and noosphere concepts in 'The Biosphere and Noosphere Reader' by Paul R. Samson and David Pitt (Samson and Pitt 1999). Vernadsky's "pioneer ideas on the biosphere and the role of living matter in its functioning" (Krumbein, Lapo:133) were popularized in the 'Gaia in Action' anthology (Gaia in Action 1996).

Concerning the affinity of the biosphere concept and Gaia hypothesis, Grinevald suggests that "a closer view including a historical perspective is now necessary in order to understand the affiliation between the Gaia concept and Vernadsky's concept of the biosphere" (Grinevald:48). Thus in the new context of "the adoption of a cosmic perspective on the ecology of the whole Earth" Vernadsky's work on the biosphere "must become a classic, within environmental education as well as scientific learning"(Ibid.:48). Grinevald credits Vladimir Vernadsky with "the title of father of the global ecology of the biosphere", recognizing him to be the most illustrious avatar of the current Gaia theory (Ibid.:48).

3.6. *Vernadsky, Scientist and Intellectual Predecessor of the Contemporary World Agenda.*

"A mineralogist by training, a pioneer interdisciplinary scientist by vocation and a philosopher at heart" (Samson and Pitt:54), Vernadsky described himself as 'cosmic realist' (Serafin:121). This interdisciplinary vision is of critical need and actuality today. Vernadsky elaborated an opening perspective on the fact that Earth is a self-contained sphere, considering the interaction of gases, water systems, solar energy and living matter on the planet (Vernadsky 1998). He explains that life is not merely *a* geological force, it is *the* geological force, transforming the planet, and the planetary influence of living matter becomes more extensive with time. Vernadsky points out that "life presents an indivisible and indissoluble whole, in which all parts are interconnected both among

themselves and with the inert medium of the biosphere" (Vernadsky 1998:148). Vernadsky's holistic point of view was one of the predecessors of the contemporary global ecological worldview (Samson and Pitt 1999, Grinevald 1996.) Vernadsky was "a great unheralded founder of modern environmentalism and global thinking" (Samson and Pitt:55) He was "…one of the intellectual catalysts behind the emerging science of global environmental thinking" (Ibid.:55).

Several decades ago Vernadsky brought forth environmental concerns: "Man must now take greater measures in order to conserve for future generations the riches of the oceans which belong to no-one" (Vernadsky in Bailes 1990, p. 196). Grinevald highlights that "Vernadsky was the first scientist to be concerned with the boundaries of the biosphere as 'the domain of life' and he devoted a special article in 1937 to 'the limits of the biosphere'[48] (Grinevald:44). Ramachandra Guha recognizes the same aspect of Vernadsky's scientific vision, he states:

> ...it was Vernadskii who, forty years before the publication of the *Limits to Growth* report of the Club of Rome[49], pointed out that natural productive forces 'have limits and that these limits are real; they are not imaginary and they are not theoretical. They may be ascertained by the scientific study of nature and represent for us an insuperable natural limit to our productive capacity (Guha : 128).

The contemporary world agenda that was born out of the United Nations half a century ago was in a way influenced by Vernadsky's vision through the idea of noosphere as shared by Teilhard de Chardin. The development of the United Nations Educational, Scientific and Cultural Organisation (UNESCO) was partly inspired by the ideas of the noosphere (Samson and Pitt:2). Sir Julian Huxley, the British biologist and writer who was director-general of UNESCO 1946-48,

[48] Jacques Grinevald refers to the article "*Concerning the Limits of the Biosphere*" ("O Predelakh Biosphery"), published in 1937 in *Geology.*

[49] The report of the Club of Rome on the limits to growth by Meadows et al. was published in 1972, emphasizing global environmental concerns and Earth's capacity.

wrote the introduction to Teilhard de Chardin's 'Phenomenon of Man' and continued throughout his life to be one of the staunchest advocates of de Chardin's work (Macy and Bonnemaison:320).

Huxley saw institutions such as the United Nations as the instruments for the conscious evolution of life on Earth[50], where "the struggle for existence that underlines natural selection is increasingly replaced by conscious selection, a struggle between ideas and values in consciousness" (Macy and Bonnemaison:320). Huxley advocated "integration in a unitary organisation of ideas and beliefs, which can only be achieved by a large-scale co-operative exercise[51] of human reason and imagination" (Huxley as cited in Samson and Pitt, p.6).

3.7. *Sustainability as a 'Contemporary Resonance'[52] of the Idea of the Noosphere.*

Vernadsky was constantly aware of the history of particular ideas and tried to understand their trajectories. He concluded that "every generation of researchers searches for and finds the reflection of scientific trends of the time in the history of science. Moving forward, science comes upon new ideas, but inevitably reevaluates old and passed ones" (Vernadsky as cited in Yakovlev 2005, p.45).

In this sense, the study of the biosphere could be considered a precursor of the concept of sustainability. The principles of sustainable development, in their turn, are normative goals for the proper functioning of the noosphere. Or in other words, "global change and sustainable development can be viewed as important components of the noosphere" (Samson and Pitt:108). Generally, the noosphere concept "suggests a philosophy for a necessary balance" (Mikhail S. Gorbachev

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[50] Nikita Moiseev expressed very similar views on global institutions as a cornerstone of noosphere development (cf. Moiseev 1999).

[51] Robert Muller, the long-time, high-ranking UN functionary, thought of the UN as a noospheric body, reflecting planetary concerns and consciousness (Samson and Pitt:53).

in foreword to Samson and Pitt). Thus, the view elaborated by Vernadsky has provided a cornerstone for work on global environmental change and sustainable development (Clark and Munn 1986, Samson and Pitt 1999). On the other hand, the contributors to Russian sustainable development discourse consider that the concept of sustainable development "could be discussed as a further specification of V. I. Vernadsky's noosphere concept" (Kuchukov and Savka:95). Moreover, in accord with the Russian scholars referred to in the first chapter, Samson and Pitt suggest, in their comprehensive review of the ideas of biosphere and noosphere, that the noosphere represents a crucial reference point for a new vision of the future (Samson and Pitt:1). The notion of noosphere places the primary importance on cognitive and humanistic processes, inseparable from the biosphere (Samson and Pitt:2), that is why "the challenge of unprecedented environmental change may speed up the noosphere" (Smil 1997 as quoted in Samson and Pitt, p. 188).

Vernadsky's perspective raises the question of some form of planetary management (Samson and Pitt:3), as the concept of sustainable development also does[53]. Vernadsky stated that the age of *spontaneous* humanity development is over: we are now facing an era of *guided* development (Vernadsky as referred to in Golubev, p. 30).

Vernadsky emphasizes that humanity is able to, and should, reconstruct the sphere of its life by the power of labour and thought. He describes great creative capabilities that are appearing for humanity and that future generations will witness the blossoming of these capabilities (Ibid.:64).

In line with the Brundtland Report, Vernadsky underlines the importance of intergenerational equity and responsibility. Humanity should be taking more care and action to preserve natural resources for future generations (Ibid.:64). Our era

[52] Cf. Samson and Pitt 1999.
[53] "The emphasis on management" as an important aspect of the sustainable developoment discourse is underlined in Escobar 1995.

is becoming ‘the era of reason’, when the geochemical action of humanity has become intensive and excessively increased and this is the action of “the conscious and the collective spirit of humanity on the geochemical processes” (Vernadsky as cited in Samson and Pitt 1999, p.27). Thus, the further direction of planetary development depends on the attitude towards the natural environment of ‘the collective spirit of humanity’. Vernadsky wrote in his “Thoughts and drafts” in 1920: “Human consciousness becomes such a ‘force’, a driver, which we have to consider, studying every environmental process” (Vernadsky as cited in Kuchukov and Savka 2001, p.96). So for Vernadsky the noosphere represented a new evolutionary state of the biosphere “characterized by, and representative of, human society’s intelligent interaction with the natural environment” (Oldfield and Shaw 2002:397). That is why - the conservation of nature’s equilibrium was clearly a very complex problem, according to Vernadsky, on the grounds that it concerned “every domain of life: economics, science, politics, law, education, culture and ethics” (Vernadsky as cited in Bogolyubov 1987, p.139). In this sense, Russian ideologists of sustainable development advocate creating and adopting a new value system by the majority, directed toward achievement of the noosphere. Because a sustainable noosphere society increases goods and benefits, primarily, using the energy of reason and effective exploitation of information and resources - this is the new quality of development (Kuchukov and Savka:96). Therefore Vernadsky underlined that humanity should start to think of and act for, a new perspective - not a personal position or the perspective of a family, state or union, but a planetary one (Vernadsky as cited in Bogolyubov 1987, p.139).

It is remarkable that endeavours to correlate the idea of the noosphere with the Gaia hypothesis in support of the concept of sustainable development had already been undertaken in 1988 (Serafin 1988). Rafal Serafin suggested that “if brought together, noosphere and Gaia can provide a useful symbol for guiding human interventions in global ecology” (Serafin:121). Serafin considered the combined philosophical perspective of Gaia and noosphere, firmly rooted in analytical

understanding of the biosphere, to be embodied in the emerging notion of a trans-national 'sustainable development of the biosphere' (Serafin:137). In this regard, the concepts of Gaia and noosphere can offer an opportunity for a shared ethical

perspective on global ecology that is needed to supplement methodological common ground between scientists and policy-makers from both East and West (Serafin:137).

Even though Serafin thought that the concepts were likely "to continue as useful guides" (Serafin:137), the idea of noosphere has acted as a guiding notion mostly in the Russian sustainable development discourse. As, for instance, it is stated in the Presidential decree on the "Concept of the Transition of the Russian Federation to Sustainable Development":

> The advancement of humanity to sustainable development ultimately would lead to the emergence of the sphere of wisdom (the noosphere) foreseen by V. I. Vernadsky, when the spiritual values and knowledge of humankind, existing in harmony with the environment, will become the criterion of national and individual wealth (Presidential decree 1996 as cited in Oldfield 2001, p.104).

Summary:

The above analysis of Vernadsky's theses and ideas reveals that he was aware of real limits to natural productive forces and the perspective of guided development. Vernadsky also underlined the importance of intergenerational equity and responsibility. His perspective that the further direction of planetary development depends on the attitude towards the natural environment of 'the collective spirit of humanity' correlates with the fundamental principles of sustainable development suggested decades later. However, while Vernadsky's legacy proves influential for theories and strategies within the framework of

sustainable development in Russia, it is seldom addressed in the same context in the West. At the same time, the position of the few Western scholars and scientists following in the footsteps of Vernasky's ideas confirms that his work and holistic vision can be used to inspire and encourage the search for sustainability.

Chapter 4.

The Local Politics of Global Sustainability.

The Commission is convinced, however, that this will not happen without significant changes in current approaches …changes, above all, in the level of understanding and commitment by people, organizations and governments.

Our Common Future

This chapter explores current attitudes to the idea of sustainable development in the case region. Local response to the local agenda is the essence of the analysis. The analysis is based on the semi-structured interviews with the stakeholders, environmental reports, monographs and articles of the informants. It is in this chapter that the relationships between the processes of democracy and development and the contradictions arising around them in the case region will be examined. The incentives for and driving forces behind environmental improvements will be analysed as well. As outlined in the beginning of the thesis the case study area is the Krasnodar territory. Situated between the Azov and the Black Seas, Krasnodar territory (krai) is the southernmost border of Russia. Its population is about 5 million people (800 000 in the city of Krasnodar). The region is one of the most ecologically clean. This chapter is essential as it will reveal the actual state of things on the ground in relation to the global idea of sustainable development, national environmental policy and processes of democracy within the country.

4.1. *Local Perspectives.*

Since the mid-1990s the concept of sustainable development has found its way into both regional and local levels of governance. According to the Presidential decree of 1996, the concept should be incorporated into the decision-making and forecasting on both federal and local levels of government (Presidential decree

1996:5). Several regions of Russia began developing regional strategies of sustainable development as a result of the initiatives of local authorities and scientists.[54] Thus the transition to the local level was marked by incorporating the discourse of sustainable development into local policy.

The concept of sustainable development, which was introduced as a translation, may have lost its initial clarity in Russian, confirm experts on the ground (Yarmak 2006). Besides, the period during which the concept was introduced witnessed a strong emphasis on promotion on one side and radical response to "...such an obviously political decision" on the other (Yarmak 2006). Moreover, starting to apply the concept, Russian stakeholders had difficulty clarifying which stages of development were intended by the ideologists to be gradually made sustainable (Yarmak 2006). The attitude persists that the idea of sustainable development is by definition applicable on the national scale and thus "...could hardly overcome this status and get practical significance on a local level" (Cherpakov 2006). A systematic approach to the quality of environment and criteria for balanced society-nature interaction have always been on the agenda for Russian environmentalists: "So we were not sitting and waiting for a new paradigm and ideology" (Yarmak 2006).

The Krasnodar Territory Legislative Assembly has adopted the Krasnodar Territory Regional Strategy of Sustainable Development in 2003. The Strategy was elaborated by the Working commission of local administration. This effort makes a political pretense of updating the local politics with the latest conceptual trends, but not a real strategy for region development. The stakeholders critisise it for being an "...incompetent, a derisive attempt" (Litvinskaya 2006) and "woolly and imprecise", agrees Yarmak. The crucial problems of sustainability criteria and limits for development met with cynicism from the Working commission of local administration: "...if we adopt such criteria now, we are to face obscurities

[54] E.g., the Republic of Buryatiya, the Republic of Bashkortostan, the Altai Territory, the Khabarovsk Territory, the Volgograd Region.

in development" (as cited by Yarmak 2006). The perspective developed in the Belgorod Region was named as an example of a well-accomplished effort of strategies for sustainable development (Litvinskaya 2006). In most cases, local strategies are elaborated by those who "...do not clarify methodological and ideological objectives of local character" (Kharitonov 2006). The regional and local authorities of the Krasnodar Territory work without any research support (Molokanov:283). Besides neglecting social aspects, another important oversight is ignoring the importance of the ecosystem's carrying capacity as a basis for sustainable development strategies. Thus the local strategy in the case region lacks this common denominator (Kharitonov 2006) – it is reticent about the fact that the primary aim is to restrict the devastation of resources and progress towards reliance on renewable resources. The current intensive resource exploitation just highlights this dichotomy (Kharitonov 2006). So the question is – how strong is the demand for sustainable development? (Antonidze 2006).

At the same time, the State Strategy for Sustainable Development puts emphasis on the status of regions as expected bearers of "the integrated approach to balanced development" (The Strategy:20). The informants, having experience from the field, also advocate the methodology of an integrated approach as the proper solution to the problems of development and the environment. Kharitonov, with his experience in methodological issues and international cooperation, highlights the inevitability of the establishment of an interagency committee for sustainable development. Serdyuk, representing the federal body of executive power, also recognises the importance of an integrated approach to the issues of sustainable development (Serdyuk 2006).

The concept of sustainable development remains on the local political stage, according to the stakeholders, but it "...does not necessarily accord with its initial meaning" (Sergeeva 2006). For instance, the Krasnodar Territory legislative act relating to the coastal zone of Azov and the Black Sea refers to the concept of sustainable development as a "...balanced combination of consumers' economic

interests and environment preservation and improvement" (*The Krasnodar Territory legislative act relating to the coastal zone of Azov and the Black Sea*). On the other hand, the nature of environmental organisations and social agencies implies the fact that their work develops in the framework of sustainable development either directly or indirectly. In other words, the process is sometimes captured with the intrinsic Russian concepts[55] or incorporates both Russian and Western notions[56].

The business elite in the case region associate sustainable development with economic growth occurring without crises which could lead to social destabilisation and a drop in the living standards (Savva 2006). At the same time, there have not been adopted any practices of sustainable development in relation to business ethics and the way how this idea "...should influence our professional conduct is not evident" (Savva 2006).

4.2. *Local Response to the Global and Local Agenda.*

The enormous size of the Russian Federation results in great variety of regional and local characteristics. Some regions are closer to implementing sustainable development objectives than others. The economic and environmental possibilities of diverse territories within the federation are unlike. The Krasnodar Territory is quite progressive and not typical in this regard, with its high administrative budget (Antonidze 2006). That is why there is a need for re-evaluation of territories' economic and environmental capacity for achieving sustainability goals (Kharitonov 2006).

[55] 'The rational utilisation of natural resources' – in the articles of the All-Russian Society of Nature Conservation or 'noosphere' and 'legacy of Russian cosmism' in reports and conferences of the Kuban Public Academy and 'the rational planning of the use of resources', in monographs (Litvinskaya 2004).

[56] The Krasnodar Territory legislative act on the coastal zone of Azov and the Black Sea as well as the Report on the state of environment of the Krasnodar Territory employ both the concept of sustainable development and the rational utilisation of natural resources (The Krasnodar Territory legislative act 1998, Report 2002), thus combining old and new paradigms.

The informants share a belief that the Krasnodar Territory is a unique region in federal terms. Its natural wealth and resource diversity has no comparison in the country (Savva 2006, Litvinskaya 2006). With its coastal and mountain resort areas, its South Russian ports, its system of oil and gas pipelines, and its large and fertile agriculture areas, and its unique ecosystem (Litvinskaya 2006), the Territory is very attractive for investment and development. The case region is one of the most dynamically developing within the Russian Federation. The fact that it is to host the 2014 Winter Olympics further raises its potential for national and international initiatives.

One of the important global aspects of the local agenda for the Krasnodar territory is ensuring the environmental stability of the Black Sea. The State Strategy for Sustainable Development mentions this objective as a significant factor in the first stage of national transition to sustainable development (The State Strategy:19).

The Black Sea Environmental Programme (BSEP) was formally established in September 1993. The programme is funded by the Global Environment Facility (GEF) with additional cost-sharing contributions from the Commission for Environmental Cooperation (CEC) and the PHARE[57] and TACIS[58] programmes as well as bilateral contributions from Canada, the Netherlands, Switzerland and France[59]. This joint initiative was supported and coordinated by the European Union and the United Nations Development Programme. The Integrated Coastal Zone Management (ICZM) Activity Centre in Krasnodar was founded in 1993 to implement the ICZM component of BSEP. The Centre was established to facilitate the exchange of information and experience relating to the ensuring of sustainable resource use and the development of methodologies for coastal zone

[57] The Programme of Community Aid to the countries of Central and Eastern Europe.

[58] The Tacis Programme is a European Union initiative for the New Independent States, providing grant finance for know-how to support the process of transformation to market economies and democratic societies.

[59] One third of Europe and 17 countries are connected with the Black Sea basin (Litvinskaya:6).

management, with particular reference to threats to the environment arising from the transition to market economies (The Black Sea Environmental Programme Project Document as referred to in Kharitonov, p.234). The Advisory Group on the Development of Common Methodologies for Integrated Coastal Zone Management, with its research and academic base coordinated by the Krasnodar Activity Centre, has since been working on sustainable development issues and strategies.

Kharitonov coordinated a project on “Evaluation and perspectives for sustainable development in Gelendzhik as a local case for Integrated Coastal Zone Management”. Antonidze and Litvinskaya developed a spatial planning scheme for Gelendzhik resort with the help of a geographical information system, evaluating the natural component (Litvinskaya 2004). The methodology developed for this project, namely, evaluation of the vulnerability and significance of the territory components, is intended as a decision-making process for development (Antonidze 2006). Thus, setting up protected areas within the coastal zone and developing a methodology for the integrated coastal zone management becomes “...one of the tools used for optimisation of development, balanced from the ecological and socio-economic points of view” (Litvinskaya:7). As elements contribute to a totality, individual visions, trends and projects shape up sustainable development (Antonidse 2006). Besides, this and analogous projects are good examples of local response to the global agenda. Being started “...as an obvious initiative of the international community” (Antonidze 2006), the outcome of this local project, its methodology can be used on the global scale, connecting local and global levels over again.

The stakeholders promote the concept within academia (Kharitonov 2006, Litvinskaya 2006) and tailor university courses devoted to the issues and dimensions of sustainable development (Kharitonov 2006, Litvinskaya 2006, Molokanov:308), “...positioning the Russian Federation on the environmental map of the world” (Litvinskaya 2006). The range of scientific work on

sustainable development in the case region includes dozens of reports, study guides, monographs and academic articles. As a matter of practice the idea of sustainable development infuses with enthusiasm and is gradually finding more advocates (Molokanov:152). At the same time, enthusiasm of some locals is not crucial for structural transformation and environmental changes. It is said, that there is a need of a tailored public ideological education, based on environmental worldview and to be released on a federal level (Ibid.:152).

The stakeholders emphasised that personal responsibility is essential to social development. Litvinskaya states simply in her monograph that sustainable development is "a basic life principle" (Litvinskaya:6). Antonidze argues that principles of sustainable development are initially encompassed in her worldview and personal philosophy (Antonidze 2006) while, in Cherpakov's view, people interpret the idea of sustainable development for their own needs and purposes. Cherpakov insists that human nature is an amalgam of contradictory traits and a man is his own worst enemy, rocking his own boat – destroying the environment (Cherpakov 2006). He is also skeptical about sustainable communities: "...solving personal problems does not help to solve global ones" and "...sustainability cannot be sustainable behind a fence" (Cherpakov 2006).

The stakeholders, with backgrounds in the state sector, business and academia, argue for wise state policy on sustainable development and insist that the government of the Russian Federation should be positive and proactive when it comes to the issues of sustainable development (Antonidze 2006, Serdyuk 2006).

4.3. *Relevance of Intrinsic Russian Visions of Sustainable Development for Local Practices.*

The informants emphasised that Vernadsky was a genius and a unique scientist (Cherpakov 2006, Litvinskaya 2006), even though his work and the concept of sustainable development are on "different turns of the same spiral" (Litvinskaya

2006). At the same time, the noosphere concept is the basis for the course of development that was set up by Vernadsky (Litvinskaya 2006). The reference to Vernadsky's noosphere concept as the final stage of transition to sustainable development in the Russian sustainability rhetoric is reasonable from a history of science point of view – it allows "...to follow the concept philosophically to its logical end" (Kharitonov 2006). Sustainable development, "...to some extent, is rather a philosophical category" (Serdyuk 2006). But for practical measures and effects, it is not that necessary (Kharitonov 2006). The other stakeholders confirm this view: "... the antecedents of an instrument are overlooked when the instrument is in use" (Savva 2006). Savva argues that the uniqueness of the Russian approach and attitude to sustainable development is exaggerated and is often used as reference. This distinctiveness is "...a myth, used to conceal reluctance to discern the real causes of the problem" (Savva 2006).

4.4. *The Current Modus Operandi.*

There exists the phenomenal gap between words and deeds with regard to the concepts of sustainability and the noosphere in Russia. The essence of this disparity could indeed be captured with such categories as myth-making and hypocrisy. In order to tackle this problem I have been inspired by the Brunsson's study of the interrelations between hypocrisy, decision-making and actions (Brunsson 2002) I have focused on the course of policy and action of local authorities in the case region. To be specific, let us look closer at the nature of the gap. Kharitonov argues that "...laws and normative documents in force at six levels – international, federal (presidential), governmental, regional, municipal and local – combine to create a system that is very close to chaos" (Kharitonov:237).

Moreover, as an environmental NGO representative, Sergeeva verifies the fact that it "...becomes harder and harder to deal with the local authorities" (Sergeeva

2006). She specifies that the regional and local authorities put in a lot of work and care regarding major industrial projects[60]. The modern paradox is that these technogenic environmental disasters are supported by local people in the expectation of work and prosperity.[61] Antonidse confirms that individual initiatives to promote sustainable development in the region often come into conflict with profitable deals and paying contracts (Antonidze 2006). As Mary Douglas noticed, "Always and everywhere it is human folly, hate and greed which puts the human environment at risk" (Douglas:230). Local politics is a complex issue, if only because "...the character of authority here is defective in quality" (Savva 2006). Corrupt practices proceed irresistibly, in an absolutely ruthless manner (Savva 2006). Coming to power here often means getting enormous possibilities for personal gain with a low level of responsibility. And what responsibility the local authorities do have "...is very nebulous" (Yarmak 2006). As a rule, this climate of impunity is a major impediment for development (Sergeeva 2006). Development of local initiatives is real, when the government system works and has clear and rigourous fields of action. While "…attempts to maintain social and ecological stability through old approaches to development and environmental protection will increase instability" (WCED:309).

Out of four possible relationships between ideas and action systems outlined in Brunsson's study (Brunsson 2002)[62], it is evident that in modern Russia it functions mostly the only relation between the idea of sustainable development and the system of action in organizations. To be exact - current *modus operandi* or violent corruptive practices control environmental ideas and ideas of social justice.

[60] Trans-Asov and -the Black sea oil and gas pipeline systems, concrete plants, and nitrogen terminal.

[61] Even though Yarmak, representing the federal environmental inspection in the Krasnodar Territory, specifies that new large industrial projects follow in most cases the rules of strict environmental security. While it is a more complex case to control small and medium-sized business owners (Yarmak 2006).

[62] The ideas and action systems may be unrelated, independent of one another; ideas can control action; action can control ideas; ideas and action can compensate for one another (Brunsson:168).

While "...modern society is highly dependent of actions that only organizations can realize" (Brunsson:216), the Russian Federation inherited an organization system of the Soviet state and continues the tradition of laissez-faire attitude towards environmental and social justice. Local authorities are a part of an organization hierarchy with the state at the top and not autonomous responsible decision- and action-makers. This fact constrains an implementation of the "...act locally" part of sustainable development motto.

4.5. *Environmental Regulation and Changing Structures of Governance.*

The development of environmental institutions is a social objective of sustainable development. This issue was also addressed during the interviews. However, societal problems in Russia are still seldom associated with ecological factors (Sergeeva 2006). Environmental regulation faces a problematic dichotomy: while Russian environmental legislation incorporates the principles of sustainable development, the process of environmental inspection is vitiated by division and separation of authority and therefore loses a constructive approach (Yarmak 2006).

Environmental administration in Russia has undergone significant changes since the late 1980s. While the capacity and independence of this administration initially increased, the period from the late 1990s through the early twenty-first century witnessed an opposite trend (e.g., Oldfield 2005:65-91). The Russian administrative system in general, including environmental administration, has been undergoing a constant process of restructuring in recent years. As a part of these reorganisations, in 2000, the president of the Russian Federation, Vladimir Putin, closed down the Federal Forest Service and the State Ecological Committee and transferred their duties to the Ministry for Natural Resources. The interaction between different divisions of administration has further been complicated by constantly shifting jurisdictions (Kotilainen et al.:64).

On the other hand, as far as the normative system is concerned, Yarmak argues that the "Russian system of environmental regulation is advanced and well-scientifically-grounded and was finally set up by the 1991 Environmental law" (Yarmak 2006). The central objectives of sustainable development were integrated in this document (Yarmak 2006). Oldfield's monograph (Oldfield 2005) provides a detailed analysis of this act. It states that this law, namely 'Concerning the Protection of the Natural Environment', was issued just a few days before the dissolution of the Soviet Union and thus provides an insight into Soviet thinking with respect to the relationship between society and nature during the late Soviet period (Oldfield 2005:68).[63] The law starts with the paragraph: "Nature and its riches are the national property of the Russian people, the natural basis for their sustainable social-economic development and the well-being of humankind" (The 1991 Environmental law as cited in Oldfield 2005, p.68). Furthermore, it refers to notions of both intra- and intergenerational equity, outlining the tasks of nature protection legislation in the Russian Federation as:

> …the regulation of the interrelationship between society and nature with the aim of preserving natural wealth and the natural environment of humankind, the prevention of the ecologically harmful influence of economic or other activities, the enhancement and improvement of environmental quality, and the strengthening of justice and law and order in the interests of current and future generations (Ibid.:68).

In addition, the new land laws code incorporates a more integrated approach to territory development and environmental quality maintenance. It prioritises evaluation of environmental impacts and states that further approaches to development should be based on this consideration (Yarmak 2006).

On the other hand, young environmentalists confirm that "…legislation in the Russian Federation is more than sufficient" (Shevchenko 2009), but predicament

[63] Indeed, it was not revised in full until 2002.

is the violation and disregard of law. While relations of authorities and business are based on the patterns of corruption, public and scientists have been withdrawn from influencing social and environmental issues (Shevchenko 2009).

4.6. *International Cooperation and Sponsorship for the Environment.*

Global ecological objectives can be seen in the region's adoption of initiatives based in international agreements. Kotilainen et al. confirm that an important trend during the 1990s was the provision from the West of new sources of financing for Russian environmental organisations (Kotilainen et al.:64). This cooperation enabled the environmental movement to build cross-border networks and use Western funding to implement conservation programmes and projects on the ground (Ibid.:64). The informants signify that the principles of sustainable development are, "...in a way, implemented in the region by the international community" (Antonidze 2006) and that local NGOs survive on foreign funding. Funding is a crucial aspect in the local socio-economic development. Local targeted programmes before year 2000 were scuttled for the lack of both federal and local financial support.

The stakeholders have dealt with a succession of international and European initiatives: the Western Investment Facility and the German financial fund (Antonidze 2006), the German project on spatial sustainable development (Kharitonov 2006), the Global Environment Facility and the TACIS Programme (Antonidze 2006, Litvinskaya 2006, Kharitonov 2006, Yarmak 2006), the United States Agency for International Development (Savva 2006), and others. The Global Environment Facility (GEF) is called upon to play an important role as a multifaceted financial tool for solving environmental problems in countries searching for new structures of economic development. Participating in the GEF signifies that a country (or institution) has chosen to improve the efficacy of funding mechanisms for projects with a pronounced environmental dimension.

The GEF provided a grant to enable Russia to produce a first national report on biodiversity as part of its commitment to the Convention on Biodiversity. The EU has attempted to encourage Russia's conformity with its own environmental standards via the dissemination of strategic funds through TACIS assistance.

It is a widely-shared opinion among the stakeholders that, under the umbrella of sustainable development, plenty of organisations come to the region looking mainly for an attractive investment. International sponsorship sometimes becomes a motive for establishing merely temporary associations, which have the aim of securing funding rather than saving the planet (Sergeeva 2006).

4.7. *Development of a Civil Society vs. Collective Irresponsibility.*

Yanitsky sees the development of a civil society as "...a necessary precondition for the achievement of the modus of sustainable development" (Yanitsky:39) and the stakeholders in the case region express the same view (Sergeeva 2006). However, they admit that, at the moment, society is occupied with other problems and other priorities (Yarmak 2006). The development problem is commonly identified as a problem of values and attitudes.

The official rhetoric emphasises that sustainable development policy might be put into practice only with the active involvement of citizens in "the process of democratic disputes" about possible courses of action (The Strategy:20). Yarmak has experienced the opposite – only few major industrial projects were accompanied by democratic disputes (Yarmak 2006). In addition, he signifies that public opinion often differs from expert opinion (Yarmak 2006).

Sergeeva confirms that it is difficult for an environmental NGO to participate in or influence the process of regional development. The main obstacle is the multidivisional structure of the regional and local government. Another major impediment is funding (Sergeeva 2006). In fact, in Soviet times there was good

state-based financial support for environmental organisations (Sergeeva 2006) and "...most stringent environmental regulations" and a "...balanced methodological system" (Antonidze 2006, Yarmak 2006). To this extent, the state transition to novel patterns of development has not brought more clarity and rigour to regulatory norms and approaches to environmental recovery.

While national policy documents from the State Strategy for Sustainable Development of the Russian Federation advocate a strong and democratic civil society as the means of transition to sustainable development (The Strategy:21), local practices signify that "...relatively immature democratic infrastructure undermines the willingness of Russian citizens to participate actively in the transition to a sustainable society" (Oldfield 2001:106).

The other crucial cause to collective irresponsibility and personal indifference has historic explanation. Since the times of serfdom in the Russian Empire people and nature had been tsar-owned or state-owned in the Soviet Union. In the Soviet system based on the abolition of private property, people were the property of the state – not responsible owners and agents. And vice versa – since, formally, 'everyone' owned the land no one took responsibility for it. Responsibility is crucial to the legitimation of action, of organizations and of environmental situations (Brunsson:167). The situation in the USSR, which has its roots in the current state of things, was based on "...the ideology-driven presumption that natural resources, as common social property, should be all but cost-free to the state and the ministries that served as buyers and suppliers" (Feshbach and Friendly:98). This continuous state-operated disempowerment denied its citizens "…property and independence but confined them within a bureaucratic planning system that destroyed tradition, initiative and respect for nature" (Feshbach and Friendly:52). And when it seemed that *glasnost* woke up Russian people – new age of consumption rush has put off their civic involvement. They declare environmental concerns, while in fact their interest is emotional but passive and disoriented. Individual ideas and isolated visions are a poor substitute of national

commitment and action. Even more, social aspects of Social collapses of 1990-s took away from Russian citizens common vision of future and replaced it by tired and sceptical attitude, revealing in the words of Feshbach and Friendly 'the picture of psycho-ecological distress' (Feshbach and Friendly:238) and the overall crisis of mentality. That is why attitude to nature and its value is a socio-cultural problem. Very much like in the West, looking after personal interests eclipses long term, global thinking. In Russia one has to add the intrinsic weakness and immaturity of civil society. Representatives of the younger generation of Russian environmentalists explain that "…such isolated phenomena as NGOs and some relatively independent media" do not exemplify adequate civil society (Shevchenko 2009). The local society still lacks voluntary commitment and civil initiative as a starting point for development (Shevchenko 2009).

At the same time, local stakeholders share the opinion that young people, students and the "...younger generation of Russian environmentalists" are active participants in the environmental debates and activities (Sergeeva 2006, Yarmak 2006). In order to protect future generations, there is an urgent need to improve environmental consciousness: simple ignorance is a regular cause of offences (Antonidze 2006, Yarmak 2006). The importance of promotion of ecological awareness among the young generation is crucial as well. Because, after all, the most youngsters do not have clear environmental vision and real ideas of market functioning (Shevchenko 2009). After long years of state-imposed ascetism and delayed gratification, Russians are engaged in "…conspicuous consumption and getting-everything-out-of-your-life philosophy" (Shevchenko 2009).

4.8. *Outcomes.*

A corrupted Russian bureaucracy has produced a system of collective irresponsibility and all-permissiveness, which is incompatible with sustainable

development (Yanitsky:41). Environmental concerns have been given reduced priority since the early 1990s. Such initiatives as the establishment of public and political debate on environmental issues, the training of specialists, and the setting up or refining of infrastructure for cooperation on research and development in the regions could all foster environmental improvements. As the matter stands, Russian authorities are obviously aware of social and environmental problems facing the country, but "…will not take drastic action to resolve them" (Shevchenko 2009).

The question is: Can sustainable development in Russia be called a "...realistic action proposal" as was intended in the Commission's Mandate for Change (WCED:356)? Or should sustainable development be approached differently – from the point of view of the global village (Cherpakov 2006) or as a distinctively national idea "...with a Russian character" (Kharitonov 2006)? Trying to answer this question is not easy. There is also an opinion that "...maintaining a healthy environment requires massive investment, which only rich countries can afford" (Cherpakov 2006)[64]. "Johannesburg has clarified it: no money – no sustainable development" (Cherpakov 2006). In this sense, "...the social and political context for emerging ecological modernisation in Russia is definitely a challenge" (Kotilainen et al.:59).

"The pursuit of sustainable development in Russia remains a fragile and potentially vulnerable process" (Whitehead:82). To a large degree, the causes of such vulnerability are, what Johan Galtung called: "...the need-objects, the satisfiers, may be all kinds of things, material and non-material. Among the latter would also be structural arrangements (such as participation) and cultural patterns (such as systems of belief, religions)" (Galtung:150). Will the growth of

[64] While even the poorest countries have experience of improving and maintaining a healthy environment without massive global or national investments, and the Green Belt Movement of Kenya led by Peace Nobelian Wangari Maathai exemplifies it. Still, such arguments were popular in the Soviet time as well (cf. Feshbach and Friendly 1992) – "It's rich countries that can allow themselves the luxury of comprehensive environmental protection" (Shcherbak as cited in Feshbach and Friendly 1992, p. 253).

democracy, law, and science as "...the very social basis of rationality" (Yanitsky:41) should eventually overcome political irrationality and cultural legacy of passivity in Russia?

Summary:

The view expressed by the informants is that the main problem for local development is a collision between the federal government's role as an initiator (influenced by international commitments) and the local government's blocking tactics. The stakeholders share the opinion that neither the immaturity of civil society nor the irresponsibility of the business elite is as harmful for transition to sustainable development as the intransigence of local authorities. The informants from academia confirm the value and uniqueness of Vernadsky's ideas, while those whose work involves the practical implementation of new developments regard his and similar concepts as being of little relevance. The fieldwork also indicates that initiatives launched at the global level, such as paradigm of sustainable development, do not necessarily give confidence in decision-making on the local stage.

Conclusion

Concepts, like individuals, have their histories, and are just as incapable of withstanding the ravages of time as are individuals.

Kierkegaard

...the ideologies of the ideologists will have little effect on the action of the actors, and vice versa.

Brunsson

This study has examined the antecedents and history of sustainable development in the Soviet Union and Russia, as well as the use of the concept in Russian policy and local action. As an idea for the betterment of humankind and as a concept, promoted by multilateral organisations, sustainable development provides a framework for debates and discussions on global, national and local levels.

Since the concept of sustainable development was defined by the World Commission on Environment and Development (WCED) in 1987, the idea of sustainable development has become a preferred normative goal on global and local levels. Although the definition is well considered, the broad nature of the concept still leaves it open to challenge and rethinking. The political development of a concept does not necessarily reveal its deficiencies. The global discourse on sustainable development is notable for its enthusiasm for implementation and for its consensus about the guiding role of the concept of sustainable development for development of the planet (Lafferty 2002, 2004, Chambers 1997). But the conflict between environmental and economic aims has delayed implementation. The result is that, figuratively speaking, "The idea of development stands today like a ruin in the intellectual landscape" (Sachs as cited in Chambers 1997, p. 9).

At the same time, it is important not to "...allow a general dissatisfaction with the effectiveness of the concept to hinder a critical analysis of coexisting knowledges operating within different cultural contexts" (Oldfield and Shaw 2006:146).

Furthermore, the process of reworking the global concept in the light of national cultural heritage has the potential to provide a wealth of insight into the complexities associated with the sustainability discourse (Oldfield 2001:106).

The fact that the idea of sustainable development has become the 'agenda for change' and a cultural phenomenon on a global scale is, indisputably, an achievement of the UN, which has promoted the idea vigorously. Sustainable development is in fact an outstanding example of successful 'framing'. "An effective 'frame' is one which makes favoured ideas seem like common sense and unfavoured ideas unthinkable." (Bøås and McNeill:1) Desmond McNeill describes framing alternatively, as a "...massive, and to a large extent successful, agenda-setting exercise". (McNeill 2006:336)

The Russian Federation is officially in the process of implementing an approved national sustainable development strategy. This has been initiated by the adoption of the UN policy at the Rio Summit in 1992 and confirmed by Presidential decree in 1996. In past years, activities undertaken for the purpose of sustainable development have been monitored by various national bodies subsidiary to Russia's Economic Development or Natural Resources and Ecology ministries. Despite these initiatives and the 'soft' law of international environmental agreements, "...it is clear that there remains a marked gap between rhetoric and the concrete implementation of the stated policies" (Oldfield 2005:81).

The situation in Russia reveals that "...organizational talk is adapted to some norms [global norms of democracy and sustainable development - in the present study] and action to others [norms which are not in conflict with bureaucracy, corruption and disempowerment]" (Brunsson:172). Decision-making on the federal level in Russia appears to be highly formal and reflects 'the provision of legitimacy' (cf. Brunsson 2002) in relation to the global environmental and social objectives, but not an actual mobilization of action. The state strategy lacks concrete instructions and the target time frame, which could be established locally. But locally we observe that action is not adapted to the ideas (cf.

Brunsson 2002). So here, on the ground, action controls ideas of sustainable development and visions of justice and democracy. If current trends of hypocrisy, inconsistency and sheer cynicism are to be continued far into the future, the idea of sustainable development in Russia is risking to remain an objective on paper.

The essence of this study implies agreement with Edel's thesis that "...ideas may have social causes and serve social purposes" (Edel:223). Russia, as a 'torn country' (Huntington 1996), redefining its civil identity and searching for a national idea in constant political upheaval, embraced the concept of sustainable development. The framework of the idea of sustainable development has since been used to encapsulate national strategies and to re-design national traditions. Thus, the concept of sustainable development "...has played a role in the evolution of Russian environmental legislation and policy during the 1990s within the context of much broader social and economic concerns" (Oldfield 2005:70). Can we still talk about 'the evolution of the idea' of sustainable development in Russia? Or do the practices of politicians compel us instead to consider it a myth? Setting the Russian experience in the global context reveals the existence of obsolete institutes, corrupt practices, and discrepancies in relation to regional development. The practicality of implementing the objectives of sustainable development depends on the coexistence of "...appropriate political and economic systems, at both national and international level; robust social and legal institutions; and the wealth that lies in the habits, practices and skills of individual citizens – in a phrase, 'social capital'" (Holland:2).

In Russian reality, the idea of sustainable development mostly gains support within the intellectual and political elites, and remains far from the ordinary citizens' everyday concerns. The place of the natural environment within an ordinary citizen's scope of concerns, as well as the real state of affairs concerning public awareness, responsiveness and wakefulness only indicate deeply rooted cultural and credibility crises in Russia. Social responsibility of local government authorities, business and average citizens hinders widespread implementation of

sustainable development principles. Political elites of Kuban are still settling with a set of thoroughly outdated views and ideas, which mislead them into hypocrisy and corruption. The people who are not indifferent to environmental and social problems are not empowered and have a weak influence, further blocked by bureaucratic quality of local and federal authorities.

Soviet Russian semioticians argued that "...people evidently using the same language (on the expression plane), in fact speak different languages (on the content plane), i.e., they use the same words or phrases but give them different meaning" (Lotman, Uspenskij:xiii). This study reveals intrinsic elements in the Russian sustainable development discourse. It has the overall structure of Western discourse but differs in its socio-cultural content. The cultural dimension of the concept has acquired priority in Russian consciousness and has become vigorous in the sense of acquiring many cultural connotations. The significance of cultural dimension and the tradition of great moral visions throughout the history of Russian environmental thought, in particular, appear to be especially valuable and inspiring phenomena of 'the Russian case'. However, in this case we face a troubling paradox – a fantastic intellectual tradition that has and is being undermined by corruption on the ground.

The stakeholders in sustainable development in the case region indicate that "...we live in the age of myths and these myths are cultivated by political institutions and the state" (Cherpakov 2006). These myths are produced to reduce tension between citizens and authorities, to soften public disappointment (Brunsson:216) and to ensure that the state actually is a part of the 'modern project of justice and progress' (Jepperson and Meyer 1989 in Brunsson 2002, p.216). Concerning the adoption of sustainable development into this legitimising process, it is also important to note that "...hypocrisy benefits from the 'futures approach'" (Brunsson:172) - "to promise improvements is one way of handling inconsistencies" (Ibid.:172).

Barthes argued that "...the meaning of a myth has its own value, it belongs to a history" (Barthes:117). This view of Barthes mirrors the stakeholders' opinion about the irrelevance of intrinsic Russian visions of sustainable development to local practices. Nevertheless, Vernadsky's vision and the theories of Russian environmental philosophers remain important contributions to the intellectual history of the origins of global change. At the same time Vernadsky remains a key figure in the modern myth of Russian science. However, as time passes and new advances in science are made, it is becoming increasingly evident that Vernadsky's work is a source of intellectual inspiration for science worldwide. His systematic principles and methods and his sensitivity to ecological problems of the whole planet could well become part of the global approach to sustainable development.

Kasimov et al. state that, due to its high creative potential, the notion of sustainable development becomes very attractive in an ideological context (Kasimov et al.:35). At the same time, sustainable development is something new that is arising out of cultural and humanistic traditions of the past. So sustainable development is, in a broad sense, "...an active creativity in the interests of humanity and civilisation, as a whole" (Ibid.:35). This view echoes Escobar's vision of sustainable development as "...the creation of a domain of thought and action" (Escobar:10).

The cultural crisis in Russia and worldwide results in state of affairs in which although: "…the planet is coming together via science and technology, it is at the same time falling precipitously apart via cultural difference" (Witoszek:283). On the other hand, culture may become instrumental in the implementation of sustainability if it opens the door "...to an emphasis on ethical and indeed 'spiritual' values" (Oldfield and Shaw:398). Multiple versions of sustainability coexist in the world (Whitehead :15) and "...a considerable amount is to be gained from reopening the sustainable development debate to incorporate such cultural particularities" (Oldfield and Shaw:398).

The character of the thesis findings demands a conclusion in line with Myrdal's: "In a particular case, a study might reveal that a society cannot be expected to move in the desired direction at all but may actually be moving in the opposite direction. This, by itself, does not impair the logic of studying that society by using those value premises. The practical conclusions from such a study would stress the needs for increasing efforts to give more significance to the value premises" (Myrdal:70).

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